



D17 The Triage Station: Recent Advances in Mass Fatality Incident Morgue Operations

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Participants will learn about mass fatality incident morgue operations, with a specific focus on the flow of human remains through the identification process. Emphasis is placed on the development of the triage station and its role during the investigation of several recent mass fatality incidents.

1. Mass fatality incident morgue operations have evolved through time as the experience of responding agencies continues to grow. A cursory examination of mass fatality incident training manuals from the previous fifteen years indicates an increase in the flexibility of morgue design to address incident specific issues and challenges. In addition, morgue operation complexity has increased through time with the implementation of additional investigative disciplines. A relatively new development is the "Morphology" or, Triage station. When utilized, Triage is the first station to receive human remains after documentation at the Admitting/Processing station. Station staff may include a combination of the following specialties: a Medical Examiner's Office representative, a pathologist, odontologist, anthropologist, fingerprint analyst, DNA specialist, personal effects representative, law enforcement (ordinance detection expert, etc., as needed), and photographer. Triage stations have been incorporated into morgue operations during the initial stages of the 1999 Egypt Air Flight 990 crash investigation by Disaster Mortuary Operational Response Teams (DMORTs). This station was also utilized at the United Flight 93 investigation, and in a remote fashion (i.e., not in the same facility as the morgue), during the World Trade Center investigation. To date, there has been relatively little formal discussion concerning the operational focus and goals of this essential station, which can be defined as follows:

2. Development of a disaster specific numbering and tracking system in close collaboration with the Admitting/Processing section. This function ensures proper coordination of numbering systems developed and implemented independently during the recovery process. Different agencies are oftentimes responsible for the search and recovery, and for morgue operations (as was the case for the Korean Air Flight 801, Egypt Air Flight 990 and World Trade Center investigations). Proper coordination is essential for the maintenance of a chain of custody and any pertinent provenience data gathered at the scene, which could be useful for decedent identification.

3. Establish a proper chain of evidence within the morgue, in close collaboration with the Admitting/Processing section.

4. Address contamination issues before invasive study.

5. Determine if remains are human tissue, non-human tissue, or non-biological tissue.

6. Identify and maintain the integrity of non-biological evidence. For instance, wiring embedded within muscle tissue should be evaluated and taken into custody by the proper specialist at the Triage station prior to manipulation by other morgue workers, thus preventing the potential destruction of evidence during subsequent examinations.

7. Determination of commingling and separation of remains, with subsequent modification of the assigned tracking numbers. It is imperative that these functions occur as early as possible in the morgue operation to minimize the possibility of tracking errors, which could potentially weaken the proper chain of custody.

8. Classification of decedent remains as viewable vs. non-viewable before performing facial incisions, oral autopsy examinations, or removal of fingers.

9. Determination of common tissue classification. Which fragments are considered identifiable? What specific identifiable features are present on each tissue fragment? This function allows station personnel the ability to document tissue morphology, and decide on the potential for successful non-molecular identification of the tissue, and thus obviating the need for further examination at subsequent stations if deemed unnecessary by Triage station representatives. All policy issues concerning common tissue classification should be coordinated with representatives from the proper agencies (i.e., Medical Examiner's Office, etc.).

10. Determination by a DNA sampling specialist for the need to procure samples. A recent paradigm shift in decedent identification has placed increased reliance on DNA identification of decedents. The DNA sampling specialist will assess sampling potential and the need for immediate sampling to prevent the possibility of further degradation or contamination due to invasive study by subsequent morgue stations.

As outlined, the Triage station functions to streamline morgue operations, allowing investigators to



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rapidly assess the condition of remains and level of commingling, both key variables in identification success. Of paramount importance is the ability to modify the aforementioned functions based on incident specific requirements, as will be discussed during the presentation.

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