



REPATRIATION OF MORTAL REMAINS

A Practical Guide for Managers of a Global Mobile Workforce

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INTRODUCTION

Repatriation of mortal remains (RMR) can be logistically challenging and emotionally taxing for those individuals charged with the task. If the process involves an organization (e.g., corporation, school, government) seamless coordination between multiple stakeholders, domestically and abroad, is paramount to a successful and timely outcome.

In this whitepaper, Patrick Deroose, RN, outlines “best practices” in this unique space where he is considered a world subject matter expert. He has personally overseen thousands of RMRs around the world over the last three decades. The text that follows is based on his personal experiences; it is a meticulously detailed consolidation of his lists that also considers the welfare of the family of the deceased throughout.

Patrick’s narrative is deliberately repetitive to emphasize to the reader the importance of every step. The report begins with a preparation “recipe,” for any organization, regardless of industry sector. The process itself is complicated and he reinforces it with a checklist. He even addresses the multiple “misadventures” that are possible in the process! Such a humble and transparent approach reminds the reader that even after extensive planning and the best service delivery, unpredictable events can still occur.



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REPATRIATION OF MORTAL REMAINS: STAKEHOLDER PLANNING AND AWARENESS

“I think you should come home” is something you hope that won’t happen to you, ever, and with the added distance between you, the loss sometimes hits you harder. (Dilara Earle May 11, 2015)

If there’s one lesson to know about the repatriation of mortal remains it is that planning is key. This cannot be overstated. Like a well-tuned orchestra, each person must know their roles and responsibilities. From the HR manager to the assistance provider, medical, security, travel, and public relations, it’s necessary to practice for this delicate time and hold regular training drills that cover not only what can be expected, but the unexpected as well. Document everything. And leave nothing up for question.

For a successful outcome, all the stakeholders internally and externally must work in a coordinated manner. This can only be achieved if the roles and responsibilities are clearly defined and documented. Are current operating procedures synchronized with the procedures of the stakeholders (medical department, finance, security, sales and marketing, communications, counselling services, and assistance service providers)? Is there a plan to talk to the family? What about language barriers, customs forms, and death certificates?

So, with that framework, how is the body brought home? What are the necessary steps in this delicate operation?

We should begin with roles and responsibilities. The list below is a good starting point for getting everyone on the same page.



STAKEHOLDER
PLANNING AND
AWARENESS

A. HR Manager

1. Does the HR database contain up-to-date information such as changes on social status, next of kin, and religious beliefs?
2. Who will maintain communication with the family at home?
3. Does the organization have a policy of letting family travel to the site where the death occurred?
4. Does the organization have a policy on sending a non-family escort to accompany the remains (military practice)?
5. How many certified copies of the death certificate does the organization need?
6. Does the organization have an approved biography of key personnel, which can be released in case of media inquiry?
7. Does the organization at corporate level (HQ), regional, and site level have an up-to-date list of religious leaders appropriate for the population, who can be called upon 24/7?
8. Do you have to activate the Crisis Team Volunteers?
9. Questions for the bereaved family
 - a. Who is the spokesperson for the family?
 - b. Has the family identified a consignee funeral director near the selected burial site?
 - c. What is the family’s decision on burial or cremation in the event it is not indicated in the deceased’s will?
 - d. What type of casket is required?
 - e. Where will the funeral service be held: at home or overseas?
 - f. Are any specialized or personalized services required?
 - g. Does a notice need to be placed in the media?
 - h. Have the local authorities at home/in your local community been informed of the death?
 - i. Will money need to be withdrawn from the deceased’s bank account before access to that account is blocked?
 - j. Who will keep in contact with the embassy or consular office overseas?
 - k. Are the overseas embassy or consular office prepared for any media questions?

Beware of misunderstandings concerning grieving with all impacted. But when in doubt, seek professional advice, e.g., medical director, EAP/IEAP provider — understanding the social fabric of the family is essential.



B. Benefits Manager

1. Is the repatriation covered under the company insurance policy?
2. Are there limits and sub-limits under the policy?
3. Is this incident covered under a workman's compensation policy?
4. What kind of supporting documents does the insurer require?

C. Safety Manager

1. Was the death caused by or impacted by a safety issue?
2. Is documentation on the incident complete?
3. Does the death affect or potentially affect the operations of the work site or the company?

D. Organization Medical Director

1. Is a copy of the medical report from the hospital, including the imaging studies, needed? Beware of exclusions under insurance policies. Beware of privacy and confidentiality issues after death.
2. Is a copy of the autopsy report needed?
3. Is there a request for a secondary, private autopsy? Is there access to a private pathologist for a secondary autopsy? Is there cover for this secondary autopsy?
4. In case of death due to contagious disease, has the local Centers for Disease Control [and Prevention] (CDC) and/or local Department of Health been contacted? Are organizational hotline numbers for CDC up to date? Is there a protocol or practice to involve the safety manager in case of outbreak of contagious disease on the work site?

5. Is there a company sponsored Employee Assistance Program (EAP) or IEAP program, and how are they alerted?
6. Does the organization have a policy on managing requests from the descendant or next of kin for whole or partial body donation for medical research?

E. Organization Security Manager

1. How will portable communication devices that have both personal (private) and company confidential data be handled?
2. Is there a designated person to gather the deceased's personal belongings, make an inventory, and deliver them to either the office or to the family? Also, is there a person responsible with international shipment regulations, including but not limited to, any applicable Dangerous Goods Acts, etc.?
3. Who will be dealing with rental cars, rental apartments, outstanding hotel bills, hospital bills, and potential legal repercussions?

F. Family Members

1. Do they need to let travel/medical/workman's compensation insurance company know of the death?
 - a. This depends on the organizations' policy.
 - b. There are, however, items and issues the family in most cases may have to handle themselves such as:
 - i. Managing bank and loan accounts
 - ii. Appointing a notary
 - iii. Applying for social security benefits
 - iv. Transferring a car title
 - v. Informing the accountant
 - vi. Managing personal insurance policies
 - vii. Paying taxes
 - viii. etc.

What does insurance cover?

1. Depends on policy coverage under the "Terms & Conditions," e.g.:
 - a. Repatriation costs
 - b. Cost of family travel to incident site

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- c. Funeral costs: which items are covered?
 - d. Did the member buy separate funeral coverage? If so, does this coverage apply to overseas services and costs?
 - e. Outstanding medical expenses
 - f. Payment and attempt to file a claim
2. There may be exclusions:
 - a. Pre-existing conditions, if enforceable
 - b. Alcohol and drug use: is there a requirement for objective documentation?
 - c. Suicide: is there a requirement for objective documentation?
 - d. Not wearing helmet or seat belt: is this a legal requirement in the country, state/province?
 3. There may be sub-limits:
 - a. Casket or urn
 - b. Transport to port of entry only
 - c. Coverage of funeral services

Is there a reason why the organization should pay for all or some of the expenses in the incident or are these non-covered expenses? Some things to consider:

1. Does the death need to be registered in the home country?
 - a. The embassy or consular office should be notified. Note that some countries may not have a diplomatic mission in the incident country and may rely on a correspondent mission for consular services. This mission may be out of the incident country, necessitating the transport of documents that will result in delays of the deceased's return home.
 - b. In most countries the home death registry does not necessary have to be informed, since this would be done via diplomatic communication channels.
2. What can an embassy or consulate do or not do?
 - a. Provide information and referrals: they do not recommend one provider over another
 - b. If necessary, assist in identification of the body
 - c. Assist with obtaining quarantine clearance in the home country
 - d. They do not pay for services: e.g., translation, freight for personal belongings, etc.
3. How long does it take for the body to return home?
 - a. Will investigations or legal matters slow the process?
4. Does the flight take passengers?
 - a. Yes: combination cargo/passenger (COPAX) flights
 - b. Beware of domestic and regional flights
 - c. Beware of cargo opening hours
 - d. Potential for delay
5. Do the passenger flights operate on the day the shipment of the remains takes place?
 - a. Normally yes, but not always





REPATRIATION OF MORTAL REMAINS: THE PROCESS

Death happens on the ground, at sea, and in the air, and makes no distinction between gender, age, beliefs, wealth, or political power. It can happen to a businesswoman attending a conference, a roughneck on an oil rig, or even a newborn or its mother. Medical emergencies happen all the time — heart attack, stroke, and car accidents — and sometimes lead to death. But they always come at a time that's least expected. Some recent examples show the breadth and depth of the unexpected. All are challenging for the family and the organization.

- An offshore drilling accident happened in international waters off the coast of Venezuela, resulting in a Filipino electrical engineer falling overboard from the drill vessel. His colleagues retrieved the body; he was pronounced dead by a medic and the ship's captain.
- An expatriate couple working in Cairo, Egypt for an accounting firm delivered twins — one boy and one girl — prematurely at 26 weeks: one was stillborn and buried locally; the other passed away two weeks after delivery. The second baby was cremated and the ashes repatriated. The still-born's body was exhumed a year later to re-unite family.
- A child traveling with his parents from Nairobi, Kenya back to Adelaide, Australia died mid-flight from dehydration due to vomiting and diarrhea.
- An expatriate died in the massage parlor in Chongqing, China after manipulation of the neck.
- A business traveler was caught in a tsunami in Phuket, Thailand while on a holiday incidental to his business travel.
- The sudden death of a young student, just days before Yom Kippur.
- An NGO volunteer died in Sierra Leone from a suspected case of Ebola.
- A student in Santiago de Chile was hit and killed by a car when crossing the road in a marked crosswalk.

Legend has it that on his deathbed, the comedian Bob Hope's wife, Dolores asked him, "In what do you want to be buried?" Hope replied, "Surprise me."

While a sudden death is always a shock, organizations can and must plan for these events. Not confined only to large organizations, for many companies and organizations with travelers and employees overseas, it's only a matter of time before they experience the need for a repatriation of mortal remains. There is a lot that goes into the planning, from understanding the psychology to picking an assistance provider that can help, to making contact with next of kin and keeping them in the loop. Not only that, there are various government agencies (that operate at their own pace), paperwork, forms, customs departments, and decisions on how the body should be handled and transported.



2. Since the assistance provider has no relationship with the family, it is recommended that the communication is conducted, managed, and maintained by the organization's representative, who may be familiar with the family. However, if this is not possible, the assistance provider can perform this function on condition that the organization identifies the next of kin. This may be challenging from time to time, because the social infrastructure of the family often changes over the course of a career (divorce, separation, boyfriend, girlfriend, or outdated HR records).
3. The organizational point of contact must be able to channel the information within the organization to any internal stakeholders. Therefore, the point of contact must understand the internal workings of the organization, as well as be in a position to make decisions on behalf of the organization.
4. Any communication must be done with great sensitivity with respect to the distress of the next of kin. The assistance provider requires, as soon as possible, the family's decision regarding the final disposition of the body (local burial, local cremation and/or transport of cremates, repatriation of the body), permission for autopsy if indicated, and the appointment of a consignee if cremates or mortal remains are to be repatriated home. The assistance provider will seek guidance from the point of contact (POC) to determine who will communicate with the family based on their understanding of family dynamics, organizational policy, and relevant insurance coverage.
5. The reaction to bad news varies and depends on many factors, including expectations, previous experience, general personality, and status of the deceased in the organization. Research has shown that if bad news is communicated badly, it can cause confusion, long-lasting distress, and resentment. If done well, it can help understanding, acceptance, and adjustment (Lesley Fallowfield and Valerie Jenkins in British Journal of Cancer 2000, 89; 1445-1449).
6. Beware of social media (Medscape Arthur L. Kaplan 2013)
 - a. Social media such as Facebook, Twitter, LinkedIn, etc., sends messages very fast and unfiltered.
 - b. The news of the death of a loved one while overseas is not supposed to arrive by text message, and it is not to supposed show up on Facebook.

A. Psychological Reactions and Cultural Psychology

Losing a loved one is hard, but losing somebody close in an unexpected, sudden incident while the loved one is away from home is even worse.

1. The organization should focus on the living/survivors and support them. How can the institution express respect for and appreciation of the deceased? Looking after the survivors' needs for explanations, compassion and empathy for the deceased, and assurances that we will bring him/her home as soon as possible to allow family and friends the opportunity to say goodbye, are of the utmost importance.
2. Sometimes children are left behind, alone, and care has to be organized locally — or they may have to be returned to their home country — in order to put them under guardianship.
3. Some countries organize bereavement camps to help children deal with the death of a sibling or parent/grandparent, which could be a good option.

One item to note is the choice of an assistance provider. Such assistance should have a working knowledge of the countries where the organization operates, as well as a book of qualified and vetted providers when it comes to hospitals, labs, funeral directors, and transportation assets to name just a few.

B. Communication Flow and Control through Understanding the Process

1. Communication is critical during what can only be described as a chaotic time. During this period of grieving (shock, denial, and anger) it is very important to have a single point of contact to facilitate communication (ideally in advance) both within the organization and with the assistance provider. It is important to agree on communication protocols to ensure consistent messaging and setting of expectations. Communication protocols may include, but are not limited to, a daily scheduled conference call. The objective of this call is to ensure that all stakeholders are aligned. At that time, the participants have the opportunity to review the activity of the past 24 hours, the upcoming 24 hours of planned events, and seek clarification on any issue that may arise. It also prepares the point of contact for his or her communication with the family. The organization should be offered this conference call, and participation should be strongly recommended and encouraged.

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C. Notification of the Family: Bearers of Bad News

1. The point of contact must have a good understanding of the family infrastructure and dynamics.
2. Updated HR records on family and next of kin will allow the organization to identify the decision maker in the family correctly.
3. The information on benefits, etc., should be easily available from the HR policy; this covers bereavement services, employee assistance program, financial support.
4. The preferred method of notification of the family of the death of their loved one is best done in person (face to face, if possible), in time and with certainty, in pairs, in plain language, with a lot of empathy and compassion.

D. Administrative Process

1. Although each nation has its own unique set of documentation requirements, most countries require at least the following documents:
 - a. Documentation of cause of death by the treating doctor.
 - b. If not available for whatever reason, a post-mortem examination may be required (with or without autopsy).
 - c. Death certificate (because of increasing concerns regarding privacy and data protection, the death certificate may not contain the cause of death, but simply a note: "natural cause"). In this case, if the cause of death is needed for insurance claims for example, the organization, with the explicit consent from the next of kin, will have to approach the hospital for medical records.
 - d. If a post-mortem examination is done, the local authority will issue a provisional or temporary certificate that permits the remains to leave the country. A final death certificate will be available after the entire investigation has been completed. The final autopsy report is available to family members but can take up to four to six weeks to complete.
 - e. Consular Report of Death of Citizen Overseas, issued by the embassy. Please consider the number of copies of the certified death certificate required based on the company policy and the insurance needs. Industry standard recommends obtaining at least 20 to 30 copies, as some need to go to the family.
 - f. Embalming certificate issued by the funeral director.

- g. Sealing certificate issued by the funeral director.
 - h. Port health certificate issued by the public health authorities.
 - i. Import and export permit issued by customs authorities.
 - j. Cancellation of the passport by the embassy or consular office. Once the passport is canceled and the consular report of death overseas issued, the canceled passport can be released to the family members.
 - k. Air transport bill issued by the airline or charter operator.
2. All documents must be translated by an official translator, and certain administrative fees may be applied to obtain these documents and get them notarized.
 3. Note that there is a difference between the military and civilian death certificate, and some local authorities in the country of destination may not accept the military death certificate. If this is the case, the assistance provider may be able to aid in transferring the military death certificate to a civilian death certificate in the country of incident.
 4. During the first conference call with the organization, or as soon after that, the question will be posed as to what type of documentation the benefits department requires in order to satisfy their internal processes and procedures. In most cases, the next of kin received the original documentation set, and the company may have to contact them to obtain a copy. Alternatively, the assistance provider may be able to release a copy of the death certificate on file, after obtaining permission from the next of kin.
 5. Upon arrival in the destination country, note that each local municipality, province, or state has different documentation requirements such as cremation permits, burial permits, or import permits. Be aware that these documentation requirements can be very local, for example there is a difference even between the documentation requirements in England and Scotland.
 6. This documentation trail may result in having to obtain multiple signatures from the next of kin at various stages in the process, inconveniencing the grieving family. Although these documents are issued by various parties and authorities, the role of the assistance provider is to ensure that these documents are complete and correct. The assistance provider will do their best to present the family with a full set of documentation requirements for this signature.
 7. Administrative pitfalls:
 - a. Spelling errors, typo errors, e.g., social security numbers, etc.
 - b. Naming conventions (first name; family name; middle names in Asian names, e.g., Lee Kuan Yue; Western names Paul Arnaud or Arnaud Paul, Richard Nicholas or Nicholas Richard)
 - c. Date convention (month, day, year vs. day, month, year)
 - d. Consistency in documentation across all documents
 - e. Translation error

E. Logistics Process

In order to transport remains on a commercial carrier to a final destination, the following logistics apply in parallel with the processing of the documentation and release of the body by the local authorities.

1. Identification of the remains by the family or family representative, which could be organization representative or embassy staff
 - a. Visual by family member, co-worker, organization representative. That can be problematic for a number of reasons:
 - i. Traumatic experience
 - ii. Never send a family member or close friend alone
 - iii. Provide psychological support at the morgue
 - iv. Do you engage your international employment assistance program (IEAP) provider?
 - b. Fingerprinting
 - c. Serology analysis
 - d. Medical and dental records comparison
 - e. Deoxyribonucleic Acid (DNA) sampling
 - f. Blood: finger prick (venepuncture)
 - g. Oral swab: beware of contamination

2. Transfer of the body to the sending funeral home. Note that in some countries the funeral directors, who have permits to perform international repatriations, are appointed by the government. The assistance provider has no influence over the choice of the funeral director in this case.

- a. Some countries, such as Ireland, have implemented a Health Safety Executive (HSE). HSE is a Notification of Death Form containing all relevant contact information in case the funeral director or embalmer suffers a sharp injury or is in any other way exposed to the deceased's body fluids, placing them at risk of infection. The form is to be completed irrespective of whether the remains pose an infectious risk or not.

3. Embalming to International Air Transport Association standards with or without restoration as per IATA Airport Handling Manual (AHM) 333 International Civil Aviation Organization (ICAO) Facilitation Manual (FAL) Annex 9, Chapter 4.

- a. Embalming or not? Various types of embalming:
 - i. No embalming
 - ii. Light embalming
 - iii. Low-index embalming
 - iv. High-index embalming
 - v. One-stage or two-stage embalming
- b. For short and speedy transfers, embalming may not be required as long as the chain of custody can be maintained throughout the journey. However certain countries, irrespective of the transport distance, insist on embalming (for example, EU countries):
 - i. A review of the embalming requirements of the airline as well as the authorities at home is an imperative step.
 - ii. The timing of the embalming must allow for three to four hours for the remains to settle, prior to departure to the airport.

Only then can the remains be placed in a casket, which is sealed and packed for transport.



ONE OF THE FIRST DECISIONS THE FAMILY HAS TO MAKE IS THE FINAL DISPOSITION OF THE REMAINS OF THEIR LOVED ONE



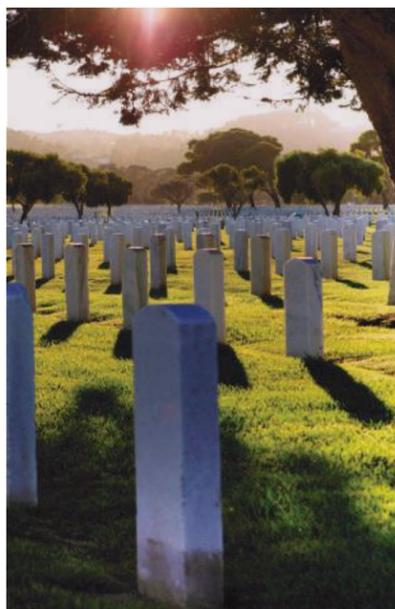
4. Casket

- a. Ideally use a simple but durable transport casket, which can be chosen by the family. When the family is on-site, they may decide to select a casket in the sending funeral parlor or even order a custom-made casket.
- b. In certain countries (for example France), the sealed casket cannot be opened without a court order. Unless the casket has a viewing window, the family may not be able to see the remains of their loved one.
- c. Packing cases. These are generic names/references:
 - i. Model 2SZ: Casket Crate (110 lbs or 50 kg)
 - ii. Model 2Z: Ziegler Crate (85 lbs or 34 kg)
 - iii. All-wood international shipping crate with IPPC stamp
 - iv. Designed for caskets and Ziegler cases
 - Casket crate dimensions: 91½ x 36 x 29 inches or 231 x 91 x 74 cm
 - Ziegler crate dimensions: 82 x 30 x 19 inches or 208 x 76 x 48 cm
 - v. Total package: The approximate weight is about 500 lbs or 226 kg. The dimensions are approximately 100 x 40 x 30 inches or 254 x 101 x 77 cm
- d. If the family wishes to conduct a religious service locally, this is best done before the casket is sealed.

- e. The sealing of the casket and packing will be done in the presence of the local authorities, and in some countries an embassy representative. The objective is to certify that only the remains are packed and shipped. Only personal items that are intended to be buried with the deceased such as religious artifacts, can be placed in the casket. Personal belongings cannot be shipped in the sealed casket and must be handled separately.
 - f. Make reservations for the flight. The assistance provider should endeavor to ensure the most direct combination of passenger and cargo flights (COPAX). The air way bill is also used to track the shipment. Do not rely on the flight schedule only.
 - g. If the family member, or a company representative, wants to accompany the casket on the same flight, the issuing of the tickets must be well coordinated. Note however that due to the size of the casket and the packing case, the traveling escort may have to take a different domestic route.
 - h. Transfer the remains to the cargo complex well in advance of the departure schedule.
 - i. If time is of critical importance, and the commercial carrier schedule cannot meet a timeline, consider offering the use of alternative means of transport such as a chartered aircraft.
 - j. Monitor the transport movement using the air way bill number.
 - k. Prepare the arrival arrangements at destination.
 - l. Send by fax or email copies of all documents to the consignee and the benefits department if required, authorized by the family.
 - m. With regards to the retrieval of the remains from the cargo complex, consider the opening and closing hours. The clearance time (security and customs) may take four to six hours after arrival of the aircraft.
 - n. Transfer the casket to the receiving funeral home.
 - o. Unpack and check the remains to ensure they are viewable for family and friends.
 - p. Viewing, funeral service, and burial.
 - q. The organization's security department may intervene to protect the organization's sensitive data, for example storage for notebook PCs, cell phones, and other electronic devices. Once cleared with the explicit consent from the family or legal representative of the estate, an inventory of the personal belongings must be made, documented, and witnessed prior to shipment. Some items such as batteries, medications, or biological samples cannot be shipped.
 - r. Based on the above administrative and logistic process, the repatriation of mortal remains takes on average seven to ten working days, sometimes longer. The process may be shortened, however it is essential to keep the point of contact informed of the progress during the daily scheduled conference call.
- #### 5. Burial or cremation?
- One of the first decisions the family has to make is the final disposition of the remains of their loved one: repatriation of the remains to the final resting place for burial or cremation, or cremation and repatriation of the cremates to the final resting place, or cremation and scattering of the ashes locally.



**THE BENEFITS
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BE AWARE OF
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BESIDES THE
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ADVISE THE FAMILY
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The documentation process for transporting cremated remains is similar to that required for bodies. However, ashes kept in an urn may be hand-carried by the family members to the home country if the transport operator and the TSA standards are met. The “carrier” must have a full set of documentation at hand.

- a. Burial locally or return of the remains home for burial or cremation:
 - i. The benefits manager should be aware of ongoing costs in the home country besides the one-off expenses, to be able to advise the family of their benefits (or lack of) in case the family has expectations that cannot be met.
 - ii. Socio-economic changes have impacted the burial of mortal remains, traditionally done in the earth/soil and over-ground niches.
 - iii. Niche burial only for finite concession, e.g., 10, 15, or 30 years. Once concession expires, the remains may be exhumed and re-buried in communal grave burial. “Due to the space shortage, even those who opt for a burial at the public cemetery must be prepared for the grave to be exhumed after six years so the body can be cremated” — South China Morning Post, 15 July 2017, Rachel Blundy & Hana Davis.
- b. Cremation and crematoria:
 - i. Cremation is guided by cultural and religious beliefs, socio-economic developments, accessibility to facilities and services, ecological concerns.
 - ii. Taiwan: Changing attitude toward burial, land concerns pushes Taiwan toward cremation. In 2012 Taiwan opened its first green columbarium in suburban Taipei with 50,000 spaces to store funerary urns.
 - iii. Singapore: In 1998, the National Environment Agency officially limited the burial period to 15 years due to space constraints. Cremation will take place after 15 years. After cremation, relatives can store the ashes at home, in a columbarium, or scatter them at sea off the coast of Pulau Semakau.
 - iv. Japan has an estimated 5,100 crematoria, but only 26 in Tokyo. Japan has a long history of inheriting rural graves or urban cemetery plots. However the cost of maintaining them is skyrocketing. The waiting time for cremation is long. This has in turn led to the development of “corpse hotels,” where families can house the dead before cremation. This long waiting time can impact the international repatriation and the return of the deceased home.

- c. Cremation locally and shipment of ashes home:
 - i. Options for the family: hand carry or ship.
 - ii. Alternative options for family: cargo or courier.
 - iii. TSA concept of “known shipper” (2003). The cargo or hand-carried cremates must meet TSA requirements. For shipment of cremates by cargo, it is recommended that the consignee has known shipper status so as to avoid delays in customs clearance.
 - iv. FedEx, UPS, and DHL will not (knowingly) ship cremates.
 - v. USPS offers transport service for cremated remains (October 2014):
 - If correctly packaged, cremated remains may be shipped domestically within the US and internationally from the US.
 - This option is not recommended for returning human remains home, due to lack of expression of dignity. But it may be useful for repatriation of cremates of a pet animal, or shipment to a craftsman for incorporating the cremates in memorial art work if the family decides to do so.
 - Packaging: inner and outer container, sift proof, well padded, inner container in sealed plastic bag.
 - Outer container has “cremation sticker” and the complete address of the consignee, including telephone numbers (Label 139 and PS Form 2976-B).
 - Destination country accepts cremates by post (postal service International Mail Manual: IMM).
 - Write the address and contact details of sending and receiving party in the outer container.
 - Customs declaration.
 - Send as “signature required.”
 - vi. Cremates are categorized as “hazardous materials.”

7. Transit arrangements
 - a. Minimum transit time three to four hours (off-loading passengers, off-loading cargo, security checks, transfer to connecting aircraft).
 - b. Transit storage appropriate location, temperature control, dignity.
 - c. Lost casket in transit, or mixed up.
8. Consignee and arrival arrangements
 - a. Funeral director at airport with all documents and permits, and appropriate transport (preferably a hearse instead of truck or van); confirm that all documents are available (nothing that is required for cargo clearance is held by family members or company representative).
 - b. Off-loading of casket takes about four hours.
 - c. Closing hours of cargo complex are different from passenger terminal (check before updating family and next of kin on arrival date and time).
 - d. Possible delay in clearing the remains, thus overnight (which may or may not be acceptable for family because of religious concerns); if delay and clearance the next morning, does the escort need hotel accommodation in airport hotel?
 - e. Arrival in funeral home: inspection in all privacy, away from family (check for: wrong body arrived, state of remains unacceptable for viewing even after restoration attempts, leaking of embalming and other fluids, need to change casket from transport casket to casket of family choice, etc.).
 - f. Preparation for viewing (or not) and religious service.



THE ASSISTANCE PROVIDER MUST MAINTAIN A GOOD WORKING RELATIONSHIP WITH MANY STAKEHOLDERS BEYOND THE FUNERAL DIRECTOR

6. Service providers: assistance provider

As this process indicates, in order to execute the service successfully, the assistance provider must maintain a good working relationship with many stakeholders beyond the funeral director — such as government officials, medical examiners, pathologist, ground transport services, airlines, and charter operators, to name but a few. The assistance provider should maintain a global dynamic database of the providers that are vetted and are qualified. Ideally, the assistance provider should have at least one funeral director with international experience in each country where there is organizational exposure. This gives the assistance provider the opportunity to build a working relationship and have a common operating procedure.

- a. Air transport — commercial carrier
 - i. Combination of cargo and passenger flight COPAX versus cargo only.
 - ii. Connecting flight and traveling family members may not match the connecting flight of the remains due to customs clearance, size and type of aircraft on the connecting domestic or regional flight.
 - iii. Minimum size of commercial airliner/aircraft B737, A319/320/321.
 - iv. Consider charter aircraft or alternative mode of transport for short domestic and regional flights on small aircrafts RJ100, Fokker 100.
- b. Charter aircraft, consider access door.





F. Autopsy

Although both terms “post-mortem examination” and “autopsy” are used interchangeably, strictly speaking, a post-mortem examination is an open inquiry held in “public” to try to establish the likely cause of death. This may cover more investigative processes and procedures than an autopsy. The latter refers specifically to a surgical intervention on the body to determine the cause of death. In cases where the cause is unknown or suspicious, the local authorities may conduct an investigation. A police investigation covers a whole range of tools/resources used by the local authorities, of which the autopsy is only a part, specifically to determine the cause of death. Other investigations at the site of the accident, or the crime site, form part of that investigation.

The reasons for conducting an autopsy vary significantly. But in general terms, we distinguish between a clinical autopsy and the medico-legal (judicial) autopsy. Distinguishing both is important from a consent perspective. The medico-legal autopsy is a requirement in the state, province, or country where the deceased passed away. This is a requirement by law, and in most of the countries no consent is required. Some examples where this type of autopsy may be required: to confirm the identity of the deceased, sudden and unexplained death, death occurring during surgery, doctor unwilling or unable to sign the death certificate, to collect trace evidence, or reconstructing a crime scene. The clinical autopsy is done for medical reasons such as establishing the cause of death, research purposes, to advise the family on genetic health risks, or to alleviate doubt in the family’s mind on the treatment received by the patient locally and requires the consent of the next of kin or executor of the estate. Sometimes there are conflicting interests between the physician interested in medico-legal, scientific, educational, and clinical aspects and the surviving family’s religious beliefs as well as societal norms and culture. For this reason some countries have a strict hierarchy in determining the next of kin and their authority. Both types of autopsies are performed in a similar manner and can either be limited or full-body autopsies.

The sudden death of an employee overseas, often in a faraway country, with different infrastructure, different customs, and different religion, may result in the family having doubts on what happened to their loved one. They may not trust the local facilities, including the autopsy results, and may request an autopsy upon arrival in the home country. They may insist that the remains of their loved one be returned home un-embalmed, to allow an autopsy at home. In this case, the family can be reassured that an autopsy can be done on the embalmed body (but with some constraints), including toxicology tests (e.g., hair sample, eye tissue sample).

**THE SUDDEN DEATH
OF AN EMPLOYEE
OVERSEAS...MAY
RESULT IN THE FAMILY
HAVING DOUBTS ON
WHAT HAPPENED TO
THEIR LOVED ONE**



Note that some of these tests may not be available in every country, even industrialized Western countries. The pathologist must be engaged, able, and willing to perform the autopsy. Some pathologists may feel that performing a private autopsy is not worth their time and money. They have to deal with unpleasant procedures, selection of eye tissue samples, review of the slides, report writing – and most of them are employed as salaried staff of the hospital. Therefore the nearest pathologist willing and qualified to perform the autopsy may be away from the burial site selected by the family.

During the autopsy, the pathologist may request small-size samples to be taken from certain organs for further microscopic investigation in the laboratory. These samples may later be returned for burial with the body, or may be retained for research and teaching purposes, or may be disposed of as biohazard materials. The final disposition of the samples will be done according to the wishes of the family or next of kin. It is therefore important to communicate this clearly to the family in order for them to make a final decision and obtain their informed consent. If the family wishes, after the test has been completed and the inquiry has been closed, these samples can be obtained from the pathologist/coroner/hospital/treating doctor.

Acceptance of autopsy by some religious groups varies. Most will allow a medico-legal autopsy mandated by the local authorities, but some segments of the population may resist a clinical autopsy, or allow it only under certain circumstances. The more diverse the society, the higher the autopsy acceptance rate. Most family concerns relate to visible traces of the autopsy, possible delay of funeral rites, and uncertainty over the disposition of the retained tissues.

Recent studies published in the Journal of the American Medical Association (JAMA) seem to indicate that the acceptance of autopsy is closely associated with acceptance of organ donation.

One study demonstrated the connection in attitudes toward organ donation and funeral preference. Individuals selecting cremation were often more positive toward autopsy and dissection compared with those who selected burial of the whole body in the ground.

Another study seems to demonstrate a common core in the reaction to autopsy, organ donation, and anatomical dissection for educational purposes. “The rank order of the different reactions of discomfort was very much the same for autopsy and organ donation.”

“Religions and the Autopsy” by Elizabeth C. Burton, Medscape 20 March 2012 and NVRAD 2015, Indiana University.

“Religion and Autopsy” E. C. Burton, Stacy A. Gurevitz , 2010.



BUDDHISM

Three major divisions: Theravada (Southeast Asia and Sri Lanka, Mahayana in North Asia, and Vajrayana in Tibet). The body is a shell for the spirit — autopsy is a form of compassion — soul leaves the body after three days — do not disturb unless determined by priest.



CATHOLICISM

Autopsy has value, thus is act of charity; helping others accept autopsy but treat body with respect.



HINDUISM

Autopsy may disturb the soul, thus avoid unless required by law.



ISLAM

Concerns: delay in burial, cause harm to body and remove body parts — do not encourage and if required, it should be done fast (Rashid Rida 1910: “Post Mortem examination and postponement of burial” risk of hasty burial, better to wait for official medical examination) and limited to relevant body cavities.



JEHOVAH'S WITNESSES

Death is nothingness — belief in resurrection — body created by God, autopsy is mutilating body — autopsy only with consent of family.



JUDAISM

Prohibition on desecrating body: fast burial; Rabbi Shlomo Yitzhaki (1055 - 1105) — burial can be delayed if the reason is to honor and increase the dignity of the deceased, if autopsy meets this standard, than permitted; confirmed 1962, Yitzak Raphael — autopsy can be performed to determine cause of death if it will save lives and can not be performed if patient has clearly expressed their objection — (so, “no”) unless required by law — rabbi may permit in a timely manner, organs returned to body and rabbi present.



SHINTOISM, TAOISM, AND CONFUCIONISM

Do not prohibit autopsy — the body is sacrosanct — does not belong to one's self but to one's parents. Tang Legal Code earliest law condemning the destruction of bodies.

Autopsy results may take up to four to six weeks or longer because of the time it takes to compile results of microscopic examination and toxicology results. In addition, only a limited number of individuals conduct autopsies. A death certificate will be issued by the coroner/medical examiner and include cause of death (if permitted under privacy laws) so as to proceed with the return home, but the full final report takes time. Next of kin should engage the embassy, and there may be an administrative fee. A request for payment is best be made in writing by registered letter.



G. Insurance Issues

1. Take a look at the organization's insurance policies to determine:
 - a. Range of services
 - i. Are family members covered to travel to the site of the incident?
 - ii. Are their medical expenses and possible evacuation and repatriation covered?
 - b. Limits and sub-limits
 - i. Did the deceased die of an illness or trauma, which falls under the insurance policy exclusions?
 - ii. Is there a sub-limit on the cost of the coffin?
 - c. Claims submission process
 - i. Does insurance provide for direct billing, either to the providers or via an assistance company?
 - ii. What supporting documents does the insurer need?



H. Death Benefits, Death Grants, and Bereavement Payments (UK Residents Example)

1. Certain countries provide death grants to surviving next of kin.
2. Must be applied for at the social security authority where the deceased is registered.
3. If receiving pension from one EU country, that country will pay any death grant.
4. If receiving pension from several EU countries, the country where he/she lived, or the country where he/she lived the longest, will pay the death grant.

I. Legal Issues

1. Most of the legislation related to repatriation is ancient and out of date.
2. The legislation is very fragmented at federal and state/provincial level, but efforts are being made to streamline the processes.
3. If (surviving) family is still alive. The European Convention on Human Rights (ECHR) spells out their rights: Article 9 (2) prevails over Human Rights Act 1998, section 6. Amended on 25 May 2018. Public servants have to adhere to HRA 1998 (reference text). The ECHR Article 9 relates to freedom of expression and freedom of religion.
4. There is similar overarching legislation in a number of countries: United States Constitution Amendment 1, freedom of religion, speech, and press, rights on assembly and petition; Australia: Human Rights Act 2004 (effective 2 March 2017); Singapore: Constitution Article 15, but freedom of religion is not absolute, restrictions applied to protect public order, public health, and morality.

J. Resources Available and Structure of the Funeral Industry

The industry is very fragmented.

1. Individual funeral director. Traditionally mostly family run funeral parlors. Some may be government appointed to provide services to foreigners, as in Vietnam or China. In that case, there is no control over the quality of services delivered, and the family/next of kin should be made aware of this, particularly in cases where viewing of the loved one in the home country is requested. Some may provide specialized services to a particular religion or culture such as Muslim (Janazah Services), Hindu (Shanti Bhuvan Funeral Services).
2. Group of funeral directors under one management. These funeral directors form a network of funeral directors who work from the same operating protocols, e.g., to streamline their purchases and coordinate their marketing.
3. Extended funeral directors and services. These organizations started in a niche market such as mass casualty incidents due to air crash and developed a whole range of services such as forensic pathology for identification of remains. Most have a global footprint through a loose network of "correspondents." Most work on a membership basis.
4. Assistance companies specialized in RMR. These companies specialize in repatriation of mortal remains from a central base from where they deliver the service through a network of correspondents. These correspondents may or may not be qualified or vetted. Most of them require a membership fee.

Based on needs, organizations may want to engage with one of the options above. But consider the following elements:

1. What is their 24-hour in-house capability?
2. What is the extent of their network? How do they select "correspondents?" How do they maintain their database, and is it relevant and up to date? How do they exert managerial oversight over their cases and their providers?
3. Do they offer consultancy services on repatriation matters?
4. Do they have the same values as your organization and offer an integrated holistic approach to the repatriation, ensuring continuity of care to the family?

Some concerns:

1. Collection of documents in reasonable time, under pressure from next of kin
2. Availability of cargo space on international flights
3. No possibility for direct transfer for domestic sector (size of cargo hold)
4. Document requirements vary from country to country, from state to state
5. Smaller funeral homes direct their repatriation work to larger repatriation services (outsourcing)
6. Lack of appreciation of sense of urgency by airline, cargo handler
7. Unrealistic promises, unrealistic expectations

Checklist for Repatriation of Mortal Remains

Responsibilities for delivering repatriation of mortal remains services are held by the organization (Org), the family, and the various providers and authorities. If the organization has access to a 24-hour crisis center internally or a third-party provider with the relevant skillset, this would be the preferred option to engage. Failing to do so puts the responsibility with one of the heads of department. This checklist is prepared with the view that the organization has a relationship or contract with a third-party provider or service provider (SP) to coordinate the services.

ITEM	RESPONSIBILITY
1. First call by the organization's crisis center and contacts appointed	Org & SP
2. Conference call offered to organization?	SP
- If accepted, set date and time and conference call bridge	
- If declined, consider carefully the value of conference call	
3. Organization identifies point of contact and participants of conference call?	Org & SP
4. Advice on religious denomination	Org
- Standby religious priest, etc.	
5. Advise local funeral director and consignee and assess their capability	SP
6. Explain RMR process to first caller and point of contact (POC)	SP
7. Set expectations re: timeline, constraints, working days, public holidays, Ramadan	SP
8. Is family representative on-site?	
- If yes, does organization have a go-to team member with family or EAP involved?	Org
- If no, offer appropriate counseling services	SP
9. If not, notification of death to family in person or by phone	Org
10. Identify legal next of kin (NOK) or executor of the estate (court document)	Org
11. Has family identified undertaker at site of death?	
- If yes, validate credentials and capability	SP
- If no, appoint credentialed undertaker	SP
12. Has family identified consignee/receiving funeral director?	
- If yes, validate credentials and capability	SP
- When in doubt, appoint intermediary	SP

ITEM	RESPONSIBILITY
13. Where and how are the remains stored?	Org
- Height and weight of deceased	Family or Org
- Are remains for viewing upon arrival home?	Family
- If yes, advise on status of remains	SP
14. Is autopsy mandatory or optional?	Local Authorities
15. Is family requesting non-invasive or minimal invasive autopsy?	Family
- Is this service available locally?	SP
- Can the remains be moved to the facility with service?	SP
16. Autopsy: date and time, where and outcome	Local Authorities
17. Identification of mortal remains	Family or Org
- If unable to visually ID, what method will medical examiner use (dental, DNA)?	Local Authorities
18. Release of mortal remains by local authorities	Local Authorities
19. Is the family requesting burial at sea (BAS)? Or green burial?	Family
- Can embalming be avoided?	
- Is special casket needed?	
- Are alternative transport arrangements needed?	
20. Embalming by local undertaker	Local Undertaker
- International standard	



ITEM	RESPONSIBILITY
- Restoration and advice (remains viewable)	Local Undertaker & SP
• Digital picture, if required	SP
- Casket of choice of family or transport casket	Family
- Custom-made casket needed?	Local Undertaker & SP
• Height and weight	
• Viewing window	
- Zinc lining or BioSeal?	Local Undertaker
- Packing for cargo	Local Undertaker & SP
• Advice on weight and dimensions	
• Is agricultural inspection required?	
• Is fumigation of packing case required?	
21. Prepare package of all docs requiring NOK signatures and provide to family liaison officer	Assistance Provider
22. Documentation to be completed (Original documents and translation in English or language of destination)	Assistance Provider
- Cause of death (COD)	Medical Officer or Coroner/ME
- Death certificate; civilian or military	
• Is military death certificate accepted at destination?	SP
• If not, transfer to civilian death certificate	
- Death certificate: temporary or final?	SP
• If temporary – when will final be available?	SP
• NOK to request via embassy or consulate	Family

ITEM	RESPONSIBILITY
- Death certificate	Police or Local Hospital
• Check for completeness and correctness	SP
• Hospital medical report (if cause of death not on death certificate)	SP
• Necessary number of copies (recommend 30 copies)	SP
› Family	Family
› Organization HR and Benefits Department	Org
› If organization requests copy, ask permission from NOK	SP
- Autopsy report (if applicable)	SP
• Can take six to eight weeks	
• Invoke help from embassy	Family
- Cremation/burial permit	Consignee
- Certificate of non-contagious disease	Port Health Authority
- Embalming certificate	Undertaker/Hospital
- Sealing and packing certificate	Undertaker/Hospital
• No personal belongings in packing case	Undertaker/Hospital
• Separate inventory and packing	Org
• Security clearance (dual-use electronic devices)	Org
• Permission from NOK or executor of the estate	Family
- Export permit	Customs Officer
- Cancellation of passport	Embassy
- Air way bill (AWB)	Cargo Carrier/Airline
- Official translation and notarization	Embassy
- Country specific documentation, e.g., consent forms, etc.	
• Check for completeness and correctness	SP
• Check credentials of consignee and send consignee checklist	SP
› TSA known shipper	
› When in doubt appoint intermediary	SP
- Coordinate AWB addressee	



THE PROCESS

ITEM	RESPONSIBILITY
<ul style="list-style-type: none"> • Documents to be faxed to consignee together with flight details 	SP
<ul style="list-style-type: none"> • Advise that signature of NOK may be required <ul style="list-style-type: none"> › No standard set of documentation requirements 	SP
- Import permit and customs documentation	Consignee
23. Coordinate transport	SP
- Local transport to airport of departure	Funeral Director
- Is religious send-off prayer requested?	Org
<ul style="list-style-type: none"> • If yes, have airport authorities agreed and approved? • If no, can service be held day before sealing? 	
- Explore air transport options (most direct, reliable, cost-effective)	Funeral Director
- Book cargo/air freight: AWB number confirmation	Handling Agent
- Tracking of cargo using AWB number (not flight number)	SP
- Review AWB and keep copy on file	SP
- Trans-shipment arrangements	Airline
<ul style="list-style-type: none"> • Cool storage when in transit 	
- Check domestic or regional sector (aircraft type)	SP
- Advise consignee at destination of ETA	SP
- Travel arrangements for escort (if any)	SP or Org
<ul style="list-style-type: none"> • Passport valid and copy on file • Valid visa available and copy on file • Coordinate flights • If unable to coordinate, is charter an option offered? • Issue tickets • Copy of ticket on file 	
- Coordinate arrival at destination	SP
- Import permit issued by port health authorities	Consignee
- Cremation/burial permit from port health authorities at destination	Consignee
<ul style="list-style-type: none"> • Check opening hours of cargo complex • Can cargo complex opening hours be extended upon request? 	SP
- Ground transport from cargo complex to funeral home	Consignee

ITEM	RESPONSIBILITY
- Unpacking and inspection	Consignee
- Restoration and change of casket, if needed	Consignee
- Booking of parlor	Family
- Holding room if no parlor available, or outside parlor	Consignee
- Religious rites as per family wish — consignee can only advise, not organize	Family
24. Clear communication on when cover ceases	Org
25. Who is paying for service: client or family?	Org
- To advise consignee	Org or SP
26. Cremation	Consignee
- Application for time slot	Family
<ul style="list-style-type: none"> • Keep booking receipt 	
- Payment of fees	Family or Org
<ul style="list-style-type: none"> • Documents needed: death certificate and cremation permit 	
- Cremation certificate issued	Local authorities
- Collection of ashes after cooling	Family
- Booking of niche	Family
<ul style="list-style-type: none"> • Documents needed: death certificate, cremation permit, and pay fees 	
- Selection of urn	Family
- Place urn and ashes at columbarium	Family
<ul style="list-style-type: none"> • Documents needed: cremation booking receipt 	



REPATRIATION OF MORTAL REMAINS: PREPAREDNESS/ REACTIVITY/ DEBRIEFING

There are three distinct stages to the repatriation of mortal remains process: planning, reacting to the event, and then a thorough debriefing.

The questions and considerations that follow apply to a single death overseas and are not country-specific. They are meant as a starting point and cover a broad range of what needs to happen before, during, and after an incident.

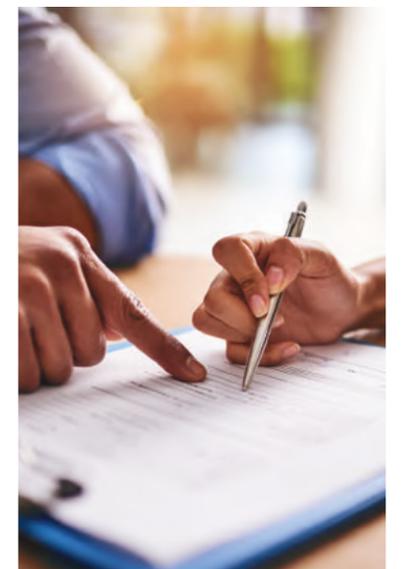
A. BEFORE THE INCIDENT: PREPAREDNESS

1. Understand the RMR process: Does the organization's decision maker understand the repatriation of mortal remains process? Is their understanding consistent with the organization's mission, vision, and values as reflected in the standard operations policy and procedures (SOPP)? Does this understanding flow through to the frontline? Does the SOPP contain appropriate checklists and templates?
2. Does the organization maintain a database in HR of the personal data of the deceased, including religious affiliation if any and updated next of kin (if not, court appointment may be needed and may delay RMR), dual citizenship, DNR, and organ donor wishes?
3. Does the organization maintain a current database of biographies and facial photographs, which can be released to the media and external parties if required?

B. DURING THE INCIDENT: REACTIVITY

1. Where is the place of death? Did the deceased die on land, at sea, or in the air? Is the location in a disputed territory or not? In domestic or international waters? Is a burial at sea requested by the family?
2. Where are the remains currently kept? What are the conditions like at the storage site? If these are unacceptable, can the organization take corrective/ supportive measures?
3. Who is responsible for the notification of the family? Who is updating the single point of contact for the family for the duration of the service? How is the notification done? How can the organization obtain relevant and up-to-date information of the incident?
4. If there is a (crisis) Incident management team, do they have the relevant/appropriate training? Can the team be dispatched at short notice, taking into consideration distance, vaccinations, visa requirements, safety, and security risks?
5. Is the family or company representative able to make decisions related to: burial or cremation, in host or home country, escort or not, hand-carry or cargo cremates, scatter or enter the cremates or place them in columbarium?
6. Who can identify the remains?

DOES THE ORGANIZATION'S DECISION MAKER UNDERSTAND THE REPATRIATION OF MORTAL REMAINS PROCESS?



**HOW CAN THE
ORGANIZATION
OBTAIN RELEVANT
AND UP-TO-DATE
INFORMATION OF
THE INCIDENT?**



7. What documentation does the organization require to be able to process claims and death benefits? Is the organization obtaining these documents directly from the various authorities or from the family? Are the documents in the appropriate language, or does the organization need to organize a notarized translation?
8. Is the cause of death clearly documented for the insurance claims to be processed? If not, is the organization able to obtain the medical records or police report? Does the organization have to obtain these records from the family?
9. Who is responding to requests from the family, e.g., travel, benefits, logistic arrangements, viewing?
10. Is any family member traveling to the site of death? If so, does the family member(s) have a valid passport and a relevant visa? If not and processing time is needed, are family members aware that their travel could delay the RMR?
11. Who briefs family, if traveling, on travel medical and security risks? Have appropriate risk-mitigating actions been put in place?
12. Is the family covered under the (travel/medical) insurance program of the organization?
13. Is the organization using an escort to accompany the remains? Who briefs the escort?
14. Is the escort covered under the insurance program of the organization?
15. Does the organization have a contracted travel agency? Who is coordinating the travel arrangements for the family (if any)?
16. Are ground arrangements (meet-and-greet service, ground transport, company representative, hotel accommodation) spelled out? And what can and cannot be expensed?
17. How does escort, either family or staff, claim expenses?
18. Is the repatriation covered under the insurance policy? Are there sub-limits, exceptions, or document requirements from the insurer?
19. If the family requests religious service, will it occur upon departure and/or upon arrival? Is there cover for this cost from the insurer or the organization?
20. If the family requests flowers to be sent to the departure city, is this a covered benefit?



21. Who is submitting the needed documents request to the family? Is this point of contact familiar with the needed documents for signature of next of kin?
22. Has the family identified a receiving funeral director/consignee? Is the consignee familiar with international RMRs? If not, is the organization, with the permission of the family, able to appoint a suitable intermediary?
23. Is the family meeting the incoming flight at the airport cargo terminal, in the receiving funeral parlor, or at home?
24. Is an autopsy legally required; if yes, does the company need a copy of the autopsy report? If not, does the family want a private autopsy, and it is covered by the organization? Does the organization have an existing relationship with a private pathologist?

25. Does the family insist or request a non-invasive autopsy? If so, is the request appropriate for the purpose of identification or establishing cause of death? If so, is there appropriate equipment and skill available on-site, in a nearby country, or at home? Can transport be organized to the facility?
26. Does the family want a green funeral? If so, how does the family define green funeral? Cremation? Alkaline hydrolysis? Can the organization accommodate this request? Is the service available in-country, in the region, or at home? Will transport costs to that destination be covered? Will the additional costs be covered by the insurer or the organization, or will the family self-pay for these services?
27. Is the organization setting up a crisis line? If so, who will be taking the calls: internal, EAP provider, a third party?
28. For death due to industrial accident, is toxicology screening required by insurer or organization?
29. Prior to shipment of personal belongings, does the organization have a witnessed itemized inventory list, including articles that cannot be shipped? What is the shipping address: office or home delivery?
30. How will the organization handle the mobile communication devices and separate company confidential information and personal information such as family photos?
31. Does the organization have an employee assistance program? Who activates it?
32. In case of media exposure, who needs to be notified and when? Who handles inquiries? Does the organization maintain biographies of all or selected staff?

C. AFTER THE INCIDENT: DEBRIEFING

1. Does the escort (staff or family) know how to claim minor self-paid expenses?
2. Does the service provider know the billing requirements, including documentation, supporting documents, and applicable fee schedule(s)?
3. How is feedback handled (positive and negative)?
4. Does the debrief require corrective action?

**IS THERE
APPROPRIATE
EQUIPMENT AND
SKILL AVAILABLE
ON-SITE?**



REPATRIATION OF MORTAL REMAINS: ADVERSE OUTCOMES

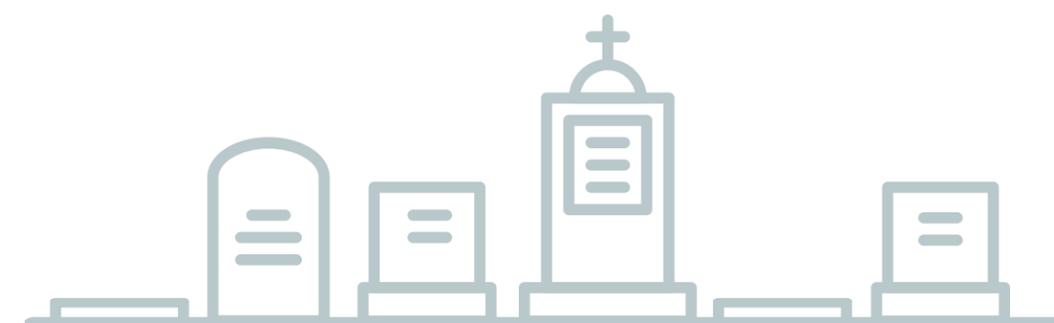
We can't anticipate everything, all we can do is plan for the worst. This includes, among other things, to be obsessive with details without forgetting the needs and expectations of the grieving family. Establish a solid, reliable, credentialed, and up-to-date network of people and organizations that can help. And always have a back-up to the back-up ready in the likelihood of deviations from the original plan. This section covers some of the more common issues that crop up.

A. Wrong Body Arrives at Destination

1. It happens more often than organizations think
2. ESCALATE up the chain as needed
3. Apologize to family but stay focused on speedy resolution, investigation to be done later
4. How was the switch discovered?
 - a. Funeral director (consignee)
 - b. Family
5. Where did the switch take place?
 - a. At funeral home
 - b. In airport upon check-in, while in transit, or at destination
6. Tracing via air way bill (AWB) and cargo station manager
7. Tracing with sending funeral director
8. Is the correct documentation with the correct body?
9. Did the correct body arrive but with incorrect documentation?

B. Airport Closure Due to Weather Conditions or Any Other “Act of God”

1. Are alternates available as part of the plan of action (POA)?
2. Can the same consignee reposition and receive the remains?
3. If not, engage an intermediary funeral director and transfer all documentation: if possible, funeral directors from same group? E.g., if the aircraft was to land in Schiphol but now is diverted to Brussels, the consignee Uitvaartverzorging De Haan en Van De Kamp BV (NL) could easily transfer the consignee responsibilities to Mortuary Brussels Airport, since both are working under the management of DELA (see page 29, section J).
4. Is there direct contact between both funeral directors via the assistance provider?
5. Formal transfer of hand-over, cargo clearance.
6. Newly appointed funeral director will bring the casket as-is to consignee.
7. Consignee remains responsible for funeral services.
8. Communication of the deviation of the POA is critical for the family.





C. Arrival of the Remains during a Public Holiday or Religious Holiday, e.g., Yom Kippur, Chinese Lunar New Year, Japanese Golden Week

1. Keep track of public holidays overseas in locations where there are staff or work sites
2. The cargo complex may be closed until after the weekend and public holiday; even if the airport is operating 24/7 for passenger traffic and traveling family members could continue their onward journey, this may not be the case for the freight complex and its cargo
3. The delay can be at best a few hours delay, but can go up to multiple days
4. Communicate pro-actively with family and stakeholders
5. Monitor flights and train schedules for major delays
6. If it impacts a major religious holiday, e.g., Yom Kippur, may consider charter for domestic sector of transfer

D. The Remains Arrive in an Unacceptable State

1. Pre-mortem clinical condition varies, e.g., burns, cachectic after long illness, bloated after drowning
2. Quality of embalming varies tremendously between countries, states/provinces and cities:
 - a. Index of suspicion
 - b. Proactive communication regarding possibility (or not) of viewing
3. Environmental conditions vary, particular during transit: hot, humid climate speeds up the decomposition process, particularly when embalming is not done to the highest standards



4. Instruct the consignee not to open the transport casket in front of the family; note that in some countries, opening a sealed casket is not permitted unless authorized by the police
5. Select (if at all possible) a consignee with proven restoration skills
 - a. Restoration can be done when changing the casket from transport casket to permanent casket chosen by the family
 - b. This comes at an additional cost, which most insurers are willing to accept
6. Facial photos at time of laying body in casket overseas can be very useful
 - a. Give an idea of view-ability of the remains
 - b. Give documental proof of condition before shipment

DEATH OVERSEAS: THE NUMBERS

A. Statistics on Death Overseas from Various Countries

There is no consistent statistical data collection that would allow us to compare the experience of different countries or different settings. From review of various sources, although incomplete, we are able to ascertain some assumptions.

1. Anecdotal cruise experience in 2018:
 - a. Very limited information available about death on board
 - b. The cruise liner had a mortuary capable of storing two bodies
 - c. Was sailing under a European flag
 - d. Medical issues treated on board were mainly respiratory diseases, both acute events and acute chronic events, for example: known asthmatic passenger developing bronchitis
 - e. Ship of 1,800 passengers, on 22-day sailing trip, with large portion of the population elderly >70 years; five deaths, off-loaded in Langkawi, Colombo, and Shalala

2. Inflight Deaths

The worldwide number of inflight deaths is difficult to assess. Most sources (Bureau of Aircraft Accident Archives (B3A), [statista.com](https://www.statista.com), European Aviation Safety Agency (EASA)), publish data on accidental deaths in the aviation industry with varying parameters, but even these incidents cover a wide range of reported deaths. A lot of the information is anecdotal mainly from media reports. The one thing that is a fact, is that the incident rate of non-accidental inflight deaths on commercial airliners remains very low taking into consideration ever-growing air traffic. The data from one specialized assistance provider:

- a. Death occurs anywhere, anytime, even on holiday, but certain populations are more at risk than others.
- b. Statistics on death overseas by country: methodology of obtaining the stats varies from country to country. Therefore the numbers may not be comparable, but they can give an indication of the magnitude of the problem.



i. US 2016

- An analysis of State Department data shows that 843 Americans died abroad from non-natural causes in 2016, and nearly 20% were caused by drowning. The statistics include only deaths reported to the State Department and deaths that can be established as non-natural.
- These numbers are NON-NATURAL deaths only.
- The data shows 156 deaths from drowning, 12 more than died by homicide; auto accidents ranked third, accounting for 143 deaths; fewer Americans abroad (15) were killed by terrorists.
- High proportion of death due to drowning is quite high and is unexplained, needs to be researched more in depth.

ii. CANADA 2012

- Canadians made more than 1.4 million trips to Mexico, a figure that includes both same-day and overnight travels, according to figures from the Department of Foreign Affairs and International Trade.
- The large traveling community to Mexico is probably due to the “snow birds,” who are also a more vulnerable group due to age and chronic medical problems.
- 14 Canadians were assaulted and three killed in Mexico, according to official reports; statistically, that equates to 1.2 incidents of death or violent assault for every 100,000 Canadian travelers to Mexico that year; the five-year average (from 2005 to 2009) is higher: 2.1 per 100,000.
- The Dominican Republic had an average of 1.6 incidents of violence (assault or death) for every 100,000 travelers, while Cuba stands at 1.5; Jamaica, however, stands at 3.6 incidents per 100,000 travelers.
- All statistics are based on figures from the Department of Foreign Affairs and International Trade; only assaults and deaths reported to the government are included.

iii. AUSTRALIA 2016/2017

- Consular officials managed 1,653 cases involving the deaths of Australians overseas, a nine percent increase on the previous financial year.
- Illness was the leading cause of death, followed by natural causes; but according to the figures, 68 Australians took their own lives overseas and a further 49 were murdered.

iv. NEW ZEALAND 2014

- In the 10 months to September 25, 2013, 154 New Zealanders were killed overseas (figures issued by the Ministry of Foreign Affairs NZ); this is up from 143 for the full 2012 year and 132 for the full 2011 year.
- One estimate places the number of deaths overseas, out of home country at 20 – 90 per 100,000 persons (Ball, D. and Machin, N., “Foreign travel and risk of harm” International Journal safety promotion, 2006).

**NUMBERS MAY NOT
BE COMPARABLE,
BUT THEY CAN GIVE
AN INDICATION OF
THE MAGNITUDE OF
THE PROBLEM**





B. Statistics on RMR from the Experience of an Assistance Company

1. Global numbers

a. Total number of RMR cases

i. 2013	448
ii. 2014	437
iii. 2015	394
iv. 2016	411
v. 2017	349

b. Gender distribution

i. Male	75%
ii. Female	25%

c. Employment type

i. Traveler	39%
ii. Expatriate	50%
iii. National staff	11%

d. Origin of the repatriation

i. US	13.5%
ii. Indonesia	9.90%
iii. UK	7.30%
iv. Japan	7.30%

v. India	5.40%
vi. China	4.60%
vii. France	4.30%
viii. Philippines	4.10%
ix. Taiwan	4.10%
x. Germany	3.60%
xi. Rest of world	35.9%

- e. The numbers may be skewed due to client population, nature of the business, strength of preventive health programs, evacuation policy coverage, evacuation destination.
- f. Expatriate and their families are exposed longer, thus more at risk for adverse events.
- g. Expatriates may also “go native” and thus change their risk profiles.

C. Learning Points

1. Death overseas is not a frequent occurrence, but very traumatizing.
2. Not infrequently, our members die suddenly and unexpectedly, often under tragic circumstances.
3. As the family grieves it would behoove any organization to provide counsel addressing the risk of death and the steps required for a successful repatriation of mortal remains so as to prepare them for the timeline which can impact closure.



DEATH AND DYING: A HISTORICAL AND CULTURAL PERSPECTIVE

A. “Rites of Passage” by Van Gennep (1930s) excellent reference book

B. Death in Ancient Egypt

1. Book of dead of Nes-min
2. Book of dead of Ani
3. Religious rituals in Abydos, in middle Egypt, 560 km south of Cairo, 170km north of Luxor
4. Death and mummification of animals
5. Strong beliefs in after-life, expressed in all aspects of life, from building pyramids, decorating the walls of their tombs with directions for navigating the underworld, to carrying small statues while traveling overseas to be buried in Egypt in case of death overseas
6. Reference materials:
 - a. “Abydos ou le mystère de la résurrection,” by Christian Jacq (2003), XO editions
 - b. “Egyptian Mummies,” by Barbara Adams (1998), Shire Egyptology

C. Death in Antiquity

1. Iliad
 - a. Story of Achilles mourning on the beach for his friend Patroclos, who was killed in battle by Hector, the son of the king of Troy. The generals convince him to go back to the battle field, where he meets Hector face to face. A fierce battle erupts and Achilles kills Hector. He then pulls the body on his chariot around the city of Troy and finally leaves the body outside the city walls for the vultures to pick on. And the gods were angry...desecration of the dead body, even of your enemy, is unacceptable, and Achilles gets punished.
2. Reference materials:
 - a. Personal communication, Prof. Praba (2018)
 - b. “Iliad” by Homer, translated by Robert Fagles



**[DEATH] IS NOT
A BLACK-AND-
WHITE ISSUE, BUT
IS INFLUENCED BY
SOCIO-ECONOMICS
AND GEOPOLITICS
AS WELL AS SOCIAL
CHANGES IN FAMILY
STRUCTURE AND
IN SOCIETY**



D. Death in Asian Cultures: India, China, Japan

1. Wide range of religions and cultures from Hinduism, Buddhism, Taoism, Islam, Shinto, Judaism, Catholicism, Jehovah's Witnesses, LDS Church (Mormons).
2. Hindu: According to Hindu beliefs, the "atman" or soul must be liberated from the prison of the body. The body is cremated and the ashes dispersed in the Ganges river (square pool representation). In Varanasi the tradition of mourners covering their bodies with cremates perpetuates.
3. Ancient Chinese beliefs and Tao: in the Tao, life is lost when death occurs. Therefore the family goes to extremes to keep patient alive as an expression of filial piety. There is no after-life: after-life lies in life itself. All beings are one, immortal — no re-incarnation.
4. Chinese beliefs in communist world:
 - a. Geopolitical influence on religion, what does it mean for you in the international business world, and in case of death overseas?
 - b. In the Chinese communist society, atheism prevails. Karl Marx stated "Religion is the opiate of the masses." This is reflected in state control of the Catholic Church and the persecution of Christian and Islam believers. The communist party stresses benevolence, patriotism, and public service without superstitious practices. In 1978, Deng Xiao Peng supported the Confucian ideas of filial piety, community first, importance of education, "love for the party," and allowed Buddhist and Taoist practices.
5. Reference material:
 - a. "Religion and communism in modern China," by TS Tonshev in The Montreal Review, April 2011

E. Death in the Western World, Americas, and Europe

1. Anatomy theatres have been around in Western society for centuries. Death was part of life, e.g., Andreas Vesalius: "De humani corporis fabrica"; Rembrandt van Rijn: "De anatomische les van Dr. Nicolaes Tulp" 1634; Henry Gray in the dissecting room in St. George's hospital 1860. However in the 19th to 20th centuries, these attitudes changed as J C Bloem reflects on medical students in the anatomy lab: "Denkende aan de dood slapen ze niet, niet slapend, denken zij aan de dood," (translated: "Thinking about death, they cannot sleep, not sleeping, they think about death.") However, respect for the deceased and

"leave them in peace" still prevail today. "Requiescant in pace" (may he rest in peace), do not disturb. Unearthing bodies for research such as anatomy classes was seen as despicable, but the practice perpetuated until the mid 20th century. Socio-cultural changes influence practices, e.g., hearse, coffin, cremation, casket form and shape.

2. Reference materials:
 - a. "Les rites de passage," by Arnold Van Gennep (1909), E. Noury Paris (1981)
 - b. "Le Folklore," by Arnold Van Gennep (1924), Librairie Stock
 - c. "R.I.P.: aspecten van 200 jaar begrafenis cultuur in Vlaanderen," by Tamara Ingels (editor), (2015) Academia Press
 - d. "The history of American funeral directing," by Habenstein and Lamers (2007) 6th edition, Burton & Mayers Inc
 - e. "Mortal Remains: death in early America," by Nancy Isenberg and Andrew Burnstein, (editors) (2003), University of Pennsylvania Press
 - f. "How We Die," by Sherwin B Nuland (1993), First Vintage Books Edition
 - g. "De verbeelding van het lijk," by Henk Groenewegen, editor (1999), Uitgeverij SUN
 - h. "Bodies in motion and at rest," by Thomas Lynch (2000), W W Norton



BUDDHISM

Three major divisions: Theravada (Southeast Asia and Sri Lanka, Mahayana in North Asia, and Vajrayana in Tibet). The body is a shell for the spirit — autopsy is a form of compassion — soul leaves the body after three days — do not disturb unless determined by priest.



CATHOLICISM

Autopsy has value, thus is act of charity; helping others accept autopsy but treat body with respect.



HINDUISM

Autopsy may disturb the soul, thus avoid unless required by law.



ISLAM

Concerns: delay in burial, cause harm to body and remove body parts — do not encourage and if required, it should be done fast (Rashid Rida 1910: “Post Mortem examination and postponement of burial” risk of hasty burial, better to wait for official medical examination) and limited to relevant body cavities.



JEHOVAH'S WITNESSES

Death is nothingness — belief in resurrection — body created by God, autopsy is mutilating body — autopsy only with consent of family.



JUDAISM

Prohibition on desecrating body: fast burial; Rabbi Shlomo Yitzhaki (1055 - 1105) — burial can be delayed if the reason is to honor and increase the dignity of the deceased, if autopsy meets this standard, than permitted; confirmed 1962, Yitzak Raphael — autopsy can be performed to determine cause of death if it will save lives and can not be performed if patient has clearly expressed their objection — (so, “no”) unless required by law — rabbi may permit in a timely manner, organs returned to body and rabbi present.



SHINTOISM, TAOISM, AND CONFUCIONISM

Do not prohibit autopsy — the body is sacrosanct — does not belong to one's self but to one's parents. Tang Legal Code earliest law condemning the destruction of bodies.

F. Most Hospitals Have a List of Available Religious Leaders and Services; Tap in These Resources to Support Your Team and Distressed Family Members

G. What Questions to Ask Yourself When Faced with Cultural Issues Surrounding Death and Dying

1. This is not a black-and-white issue, but is influenced by socio-economics and geopolitics as well as social changes in family structure and in society. As we discussed above, behavior does change over time. This is a guide only, and when in doubt, ask family but take the following into consideration.
2. A number of religions cross language and cultural boundaries. This requires us to understand culture and religion within that context.

3. “The cultural and legal aspects of death and dying are as varied across the globe as the practice of marriage and divorce,” Sandra Satterlee (2007), *The Guardian*.
 - a. Is cremation allowed?
 - b. Is burial or cremation time-sensitive?
 - c. Is autopsy allowed?
 - d. Are there one or more sub-groups or sects with different practices that we should be aware of?
 - e. Are there any religious leaders or priests who have to attend to the deceased before sending off?
 - f. Are there certain rituals that need to be followed before repatriation?

**A NUMBER OF
RELIGIONS CROSS
LANGUAGE
AND CULTURAL
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THIS REQUIRES US
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H. Learning Points

1. Multitude of religious and cultural practices, crossing regional and country borders.
2. Family and next of kin expect the company to be aware of these practices and respect them during the journey home: ask, and keep an open mind.
3. Respect for deceased prevails in most societies even today.
4. Most religions believe in an after-life of one form or another and thus have rituals related to the preservation or conservation of the body or soul.
5. From ancient times, people want to die or at least be buried at home.
6. Geopolitical, socio-economic development, and family structure influence practices.
7. Include cultural awareness training as part of your induction and ongoing staff development program.
8. Include list of religious leaders appropriate for your staff populated in your reference database and keep it updated.

I. Within the EU

“If you are breathing, you have freedom of movement. When you cease to breathe, you lose that right,” Michael Casham, member of European Parliament, 2013

1. Berlin Convention 1937 (sponsored by Office International d’Hygiene Publique and World Health Organization WHO):
 - a. Signed by Austria, Belgium, Chile, Congo, Czech Republic, Denmark, Egypt, France, Germany, Italy, Mexico, Netherlands, Portugal, Romania, Slovakia, Switzerland, Turkey
 - b. Article 10: “The provisions, both general and specific, of the present arrangement embody the maximum requirements (other than in a matter of charges) which may be stipulated in connection to the acceptance of corpses coming from anyone of the contracting countries. The said countries remain free to grant greater facilities, either by means of bilateral agreements or by decisions in particular cases arrived at by common accord.”
 - c. State law regarding medical, health, administrative, and legal matters prevails, except coffin and its content.
 - d. Article 5: addresses “exhumation.”



- e. Article 5 a: Coffins must be conveyed in a closed wagon, save where they are handed over for conveyance in a closed hearse, and remain in the same.
 - f. Article 5 b: Each country shall be responsible for fixing the time limit within which the body must be removed upon arrival.
 - g. Article 5 c: No articles may be transported along with the coffin (one coffin, one body (no mother and stillborn child in one casket)); personal effects traveling with coffin, such as religious objects, teddy bear...must be buried or cremated with the coffin.
 - h. Article 5 d: Coffins must be dispatched by the speediest route and, as far as possible, without trans-shipment.
 - i. Purifying device only if departing state demands.
2. Strasburg Convention 1973 (limited to European Union (EU)):
 - a. Due to increase in cross-border tourism, extensive employment of foreign manpower in the EU, improved communication, new means of transport (jet aircraft), and advances in medical knowledge, there was a need to review Berlin convention. A new international instrument was established.
 - b. Articles 3 to 7: If country of departure meets the convention requirements, no country at destination or transit can deny entry (purpose of “Laissez Passer”).
 - c. Article 6: Casket specifications: impervious, absorbent inside padding, purifying device, durable, all or nothing; in case of contagious disease, body wrapped in shroud impregnated with antiseptic solution.
 3. The new international instrument has its constraints as obvious from Parliament questions raised to the president of the EU. The concerns relate to transfers within the EU and between EU and non-EU countries:
 - a. Pia Noora Kauppi (PPE DE), 6 Feb 2002
 - i. Zinc coffin is not required when transporting a corpse (by road) from Ivalo to Helsinki (1,120km) but has to be used when a corpse is transported from Strasburg to Baden-Baden (50km)
 - b. Eija Riitta Korhola (PPE DE), 12 Feb 2002



- i. Zinc-lined coffin is not required for transport from Strasburg to Lyon (460km) but is required from Strasburg to Baden-Baden (50km). There are no rational hygienic or safety grounds for this rule.
- c. Cristiana Muscardini (UEN), 25 Jan 2002
 - i. Intra-community transport of bodies of dead EU citizens
 - ii. Reference made to Berlin and Strasburg conventions
 - iii. These agreements are based on the assumption that border checks are carried out and therefore become more difficult as borders are abolished
- 4. The president provided a written response
 - a. Mr. Brokstein, 25 March 2003
 - i. The Commission does not envisage any specific initiative for the moment.
 - b. European Parliament resolution on the adoption of measures concerning the repatriation of mortal remains (2003/2032 (INI)).
 - i. Freedom of movement is a fundamental right within the EU.
 - ii. Movement of remains in whatever form is a corollary of the rights of EU citizen.
 - iii. Considering the Strasburg agreement 1973:
 - 1. Ensure that the above instrument of international law is compatible with Community law.
 - 2. To harmonize the standards and procedures applied in the cross-border transportation of corpses throughout the EU, and to endeavor to ensure that the Community citizens are treated in the same way as nationals in their home countries.
 - vi. Forward resolution to Presidency and European Federation of Funeral Services.
- 5. What will the British legal environment related to repatriation of mortal remains look like in 2019, after Brexit?
 - a. Concerns regarding EU legislation application after Brexit:
 - i. Different death certificate in different countries
 - ii. Strasburg agreement may no longer be enforceable, in particular the acceptance of "Laissez Passer" and transit arrangements
 - iii. Different permissions to export the remains
 - iv. "EU Open Sky Agreement" for flights between UK and European Union might no longer apply
 - v. Border customs clearance may change and possibly delay RMR processing
 - vi. Documents not multi-lingual
- 6. IATA Cargo Handling Manuel AHM333 (January 2011)

- a. Aligned with EU Article 6
- b. Inner container of flexible material able to achieve an inner container hermetically sealed
- c. New material must meet environmental standards of waste management
- 7. International Civil Aviation Organization (ICAO) Montreal, October 2012 FALP/7-WP/16
- 8. Country-specific rules and regulations
 - a. No globally accepted legislation and standards
- 9. Privacy and data protection
 - a. Do the dead have right of privacy?
 - b. What are the rights of the funeral director?
 - c. Death certificates with no cause of death due to privacy concerns
- 10. Police investigation and autopsy
 - a. Drug and alcohol testing: what is the acceptable standard for the organization and for the insurer?
 - b. Autopsy or not (Chief Justice Antonin Scalia, *New York Times* 21/02/2016: "Pathologists are divided on decision not to conduct autopsy.")
- 11. Import and export regulations
 - a. Department of Homeland Security and Transportation Security Administration (TSA) rules on cargo inspection (2003, November 20)
 - b. US Customs and Border Protection collects cargo information
 - c. Automated targeting system to identify high-risk targets
 - d. Timelines
 - i. Inbound = four hours prior to arrival in US or "wheels up," whichever comes first
 - ii. Outbound = two hours prior to departure from US
 - e. Random checks
 - f. Augmenting the "known shipper" program (is your service provider recognized as a "known shipper," or do you expect every airline, cargo handler, ground agent, etc., to have this certification?)
 - g. Dangerous Goods Act
 - i. Embalmed mortal remains are considered "dangerous goods"
 - h. Personal belongings
- 12. International Health Regulations 2005

**ARE THERE
CERTAIN RITUALS
THAT NEED TO BE
FOLLOWED BEFORE
REPATRIATION?**





DOHS & BAS

A. Epidemiology

1. Marine environment has similar distribution as the assistance business
2. Proportionately more unexpected sudden deaths, instead of death due to chronic illness
3. Mainly younger sailors
4. More prone to trauma due to work, but among watchmen also cardiovascular deaths
5. Third-country nationals
6. Screening before contract
7. Because of regulatory environment, marine work accidents and deaths are reportable incidents that need to be investigated
8. Exposure to safety risks is significant due to nature of work, remoteness, long duration of voyage, limited medical infrastructure, and evacuation capability
9. Exception is the cruise industry: older population on long cruises (they can afford it in terms of time and money) or young people on family cruise (mostly healthy passengers)

B. Flag

1. Article 94 of the UNC LOS - United Nations Convention on the Law of the Sea: "Every state opens an investigation, led by or before one or several people duly qualified...The state of the flag and the other state cooperate in all the investigation led by the previously mentioned one."
2. Even if the vessel is within a country's territorial waters, or exclusive economic zone, the flag of the vessel prevails.

C. Procedure

1. Doctor on the ship or captain will
 - a. Certify death: irreversible brain destruction is considered the death; because of the lack of diagnostic facilities on the vessel, the following three criteria are used:
 - i. Total absence of consciousness and spontaneous motor activity
 - ii. Abolition of all reflexes
 - iii. Total absence of spontaneous ventilation
 - b. Try to determine the cause of death
 - c. Draw up medical documents to help investigation



D. Regulations Related to Death on High Seas (DOHS) and Burial at Sea (BAS)

Vary from country to country.

US Death on High Seas Act (DOHSA), 1920, is archaic; settles claims only, cover funeral expenses and lost wages only (not pain and suffering, bereavement).

DOHSA also applies to commercial aviation accidents beyond three and 12 miles zone from the US, even if the Warsaw or Montreal Convention is applied (TWA 800, Egypt Air 990, Alaskan Air 261), but does not apply to general business aviation.

DOHSA regulated by Convention of Montego Bay part ii, section B Article 94: "Every state orders the opening of an investigation led by or before one of several people duly qualified, on every sea accident or navigational incident occurring on the open sea and which a ship flying its flag is implied and which cost the life or caused severe injuries to nationals from another state, or huge damage to the ships or installations of another state or to the sea environment. The state of the flag and the other state coordinate in all the investigations led by the previously mentioned one concerning the sea accident or navigational incident of this type."

BECAUSE OF THE
REGULATORY
ENVIRONMENT,
MARINE WORK
ACCIDENTS AND
DEATHS ARE
REPORTABLE
INCIDENTS THAT NEED
TO BE INVESTIGATED

The London Convention on the Prevention of Marine Pollution by Dumping Waste and Other Matter (1972) provides the high-level frame work for burial at sea. About 100 states and territories have signed the convention.

In the US, the EPA will grant a general permit under the Marine Protection Research and Sanctuary Act (MPRSA) to authorize BAS (40CFR229.1). No specific documentation is required for BAS off US coastal waters. After the BAS, the funeral director must submit to the EPA required Burial at Sea Form within 30 days of burial. If a non-US citizen wants a BAS in US, a special permit from the MPRSA is required. The remains can be put in a natural fiber shroud or sail cloth, or in a casket. In order to aid rapid, permanent, and intact sinking, holes are drilled in the casket, weights added (300 pounds); six stainless steel bands hold the casket together.

In the UK the Marine Management Organization (MMO) established in 2010 coordinates BAS. Between 2011 and 2013, 140 BAS were conducted off the coast of the UK, in three designated zones: between Hastings and Newhaven, Needles Spoil Ground near the Isle of Wight, and off Tynemouth. MMO puts little or no restrictions on scattering ashes/cremates in the sea. There are, however, specific guidelines for BAS regarding permitted location, un-embalmed bodies only, document requirements (death certificate, public health certificate, and notice of intention to remove the remains out of England), coffin and its specifications, identification of the remains, but to date no need for DNA identification before BAS. The customs authorities may inspect the casket before the BAS. In the UK, the memories of the Winter of Discontent 1978 - 79, where the suggestion was made for burial at sea because of the gravediggers strike, are still fresh in the minds of many people.

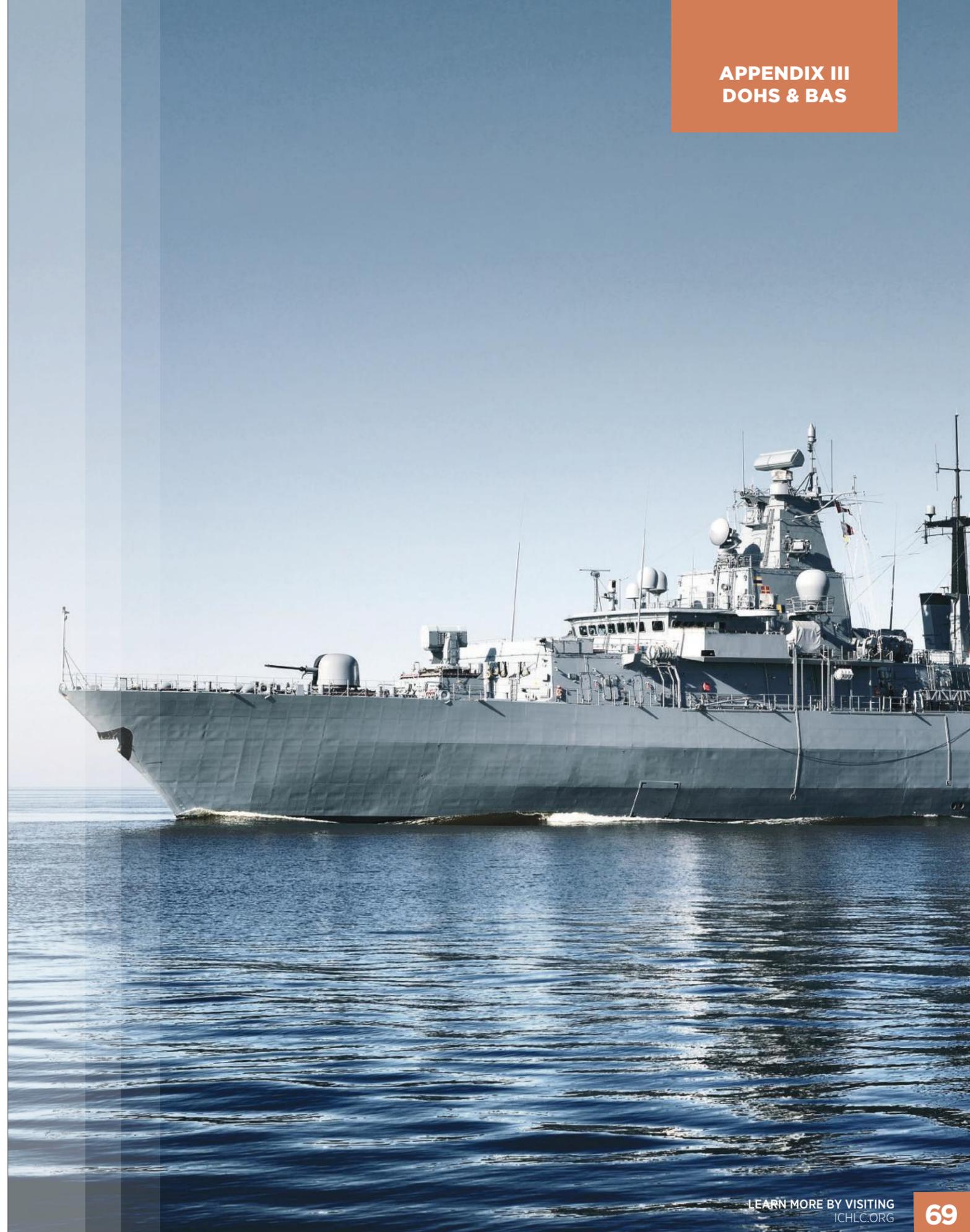




In Australia, BAS is regulated under the Environment Protection Act (Sea Dumping) 1981. The act has very similar provisions with regards to location and documentation; embalmed bodies cannot be put in a casket or another container. The remains need to be wrapped in a shroud and weighted sufficiently to ensure rapid sinking and permanent submersion.

Situation slightly different between military, maritime vessels, and cruise liners.

1. Cruise ship
 - a. Operation Rising Star or any other euphemistic code
 - b. Most medical personnel are “independent contractors”
 - c. Refrigerated storage facilities
 - d. Is next port of call willing to issue death certificate? If yes, person died “on land” instead of on seas (flag)
 - e. Repatriation can start from then onward
2. Maritime vessel
 - a. Drill rigs are considered vessels
 - b. Death on high seas is managed according to the laws of the nation’s flag
 - c. Maintenance of log, including death on high seas
 - d. In case of death of US citizen, inform US consular office; for other nationalities contact the flag state
 - e. If the body is disembarked, the consular office is responsible for final disposition
 - f. Personal belongings are handled by the captain
 - g. Burial at sea is possible, but specific parameters and reportable
3. Military vessels
 - a. US Navy and Coast Guard allow burial at sea on deployed vessels
 - b. No family allowed
 - c. Metal coffin, draped with burial flag if deceased is service personnel
 - d. No burial flag for family
 - e. Only port of exit of remains are San Diego and Norfolk Naval Base



CONTAGIOUS DISEASES

Large body of evidence exists on infection control in living, but very little evidence exists that is pertinent to the handling of the deceased. The overarching standard remains, however, the strict adherence to "Universal Precautions."

In managing repatriation of someone who died of a contagious disease, we have to balance respect for the dead with the health and safety of those who come in contact with the body.

There is no universal agreement on categorization of contagious diseases as it pertains to repatriation. Examples of this are the public health regulations in Ireland and the state of Texas, US. For the purpose of this paper, we will distinguish two categories of infectious diseases, and their impact on the repatriation process. On the one hand we have the highly contagious viral hemorrhagic fevers (VHF), anthrax, plague, etc., and on the other hand we have the infective agents that are less virulent. Therefore, refer to the local public health authorities, in transit and on arrival, for guidance in repatriating a member who died of an infectious disease.

CATEGORY 1 | **EXAMPLES OF HIGHLY INFECTIOUS AND SPECIAL RMR PRECAUTIONS REQUIRED**

Anthrax, smallpox, plague, botulism, Ebola, Lhasa fever, Junin fever, any viral hemorrhagic fevers

CATEGORY 2 | **EXAMPLES OF INFECTIOUS BUT STANDARD UNIVERSAL PRECAUTIONS APPLY**

Yellow fever, encephalitis, HIV, tuberculosis, shigella, Nipah virus, Hanta virus

Although there are a variety of containment measures that need to be taken in those two categories of diseases, we would like to emphasize the need for strict adherence to universal precautions of infection control while handling mortal remains.

The distinction between both categories remains important in order to determine transportability. In case of highly effective agents such as VHF, the standard coffin per AHM333 IATA (which we discussed earlier) may not meet the strict standards of packaging these bodies. Therefore there are special permits to be obtained from the local aviation authorities and probably also for the countries of transit and destination. Therefore, in order to avoid further delays, it may be worthwhile considering cremation. This may not be acceptable to families for a variety of reasons, which we discussed earlier on.





In cases of VHF, the body will be placed in the body bag immediately after death. BioSeal containment material seems to be effective for containing all known hazardous substances, vapors, fluids, cancers, and powders; it may be used as needed to enclose bodies. No hygienic preparation of the body or embalming is allowed, even if cultural or religious pre-requirements exist. Viewing of the body during a wake should not be undertaken in order to protect the health of the relatives and staff. The funeral director needs to be informed of the nature of the death, in order to protect himself and his staff. When the bodies are placed in a sealed casket for final disposition, the container should not be reopened for any reason. When possible, facial photographs of the deceased should be provided to the family to affirm the next of kin that the correct body has been provided. When this is not possible, other distinct identifying information should be provided.

Local authorities may demand the immediate local burial of the deceased, or impose mandatory cremation. Virtually all infective agents are effectively mitigated by cremation at temperatures above 1000°F. This requires the presence of operational crematoria.

In the event where the death has occurred but the diagnosis hasn't been confirmed, yet VHF is considered highly likely, blood should be taken first and tested for VHF. If the test is negative then a post mortem may be carried out safely. If positive, a post-mortem should not be carried out. Note that VHF can only be reliably detected for up to two days post-mortem.

In case of mass casualty involving large numbers of deaths due to a highly infectious agent, the location may not have sufficient suitable storage facilities to keep the remains until they can be processed. Under these circumstance, temporary burial and subsequent exhumation may be considered.

Local legislation may require special quarantine or detention procedures for cases of cholera, tuberculosis, plague, smallpox, yellow fever, etc. If such bodies are brought into the US from elsewhere, the code of federal regulations requires either embalming and placement in a sealed casket, cremation, or a permit must be issued by the CDC. In those cases, autopsy is to be avoided, and cremation is the preferred mode of final disposition of the mortal remains.

A special note on anthrax. Anthrax requires oxygen to sporulate. Spores do not form inside a closed space. They need air. The major risk occurs when body fluids are exposed to air. This also includes exposed working surfaces when an autopsy is performed.

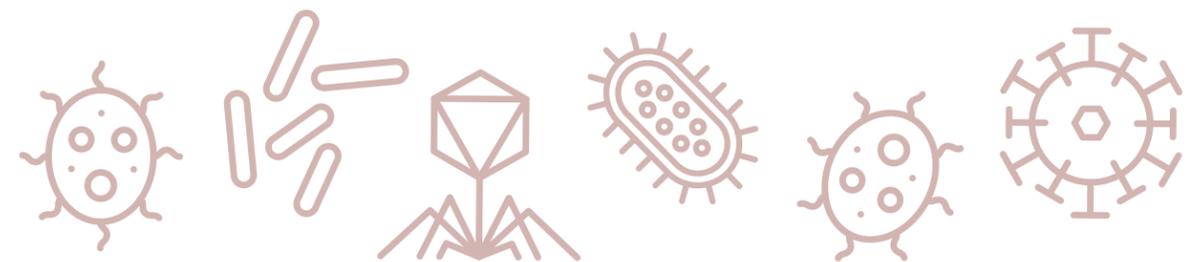
The second category of infectious agents is considered less virulent, and the risk of infection from such a body is negligible. If the body has been embalmed, the risk is even smaller since blood has been removed and replaced by disinfecting solution. Therefore these remains could be considered free from infection, and not subject to special packaging rules.

Family members may be very concerned and worried, and therefore they must be provided with prompt information that includes description of what remains the family will likely receive and how long it will take before their loved one is home. Advance explanation for anticipated delays must be provided.

Many highly contagious diseases live on the African continent and give rise to regular outbreaks. The fast spread of these diseases can in part be explained by the death rituals on the continent.

The right burial ensures that the ancestors don't remain to haunt and exert power over the living, but instead rest in peace and protect the family. This belief comes from a common African concept that life and death are a continuum of existence, with death seen as just another state of being. Because of its vastness and its diverse ethnic groups and tribes, there are many variations in African death rituals, even in a particular country. However there are some similarities in basic themes because of traditional shared beliefs about death and reverence for the ancestors.

Many African tribes believe that anyone or anything that came in contact with the dead is unclean or polluted. Therefore there is a whole ritual cleansing of the body before burial. The deceased's clothing is bundled and stored until after the mourning period and then given away. After some time, the house and family members undergo cleansing, usually involving herbs, to remove misfortune and darkness.





A LARGE BODY OF EVIDENCE EXISTS ON INFECTION CONTROL IN THE LIVING, BUT VERY LITTLE EVIDENCE EXIST THAT IS PERTINENT TO THE HANDLING OF THE DECEASED



African people are by nature a superstitious people, who fear changes in cultural practices. There is no culture of cremation. Therefore during the last Ebola crisis, it took a presidential decree and a direct communication from President Ellen Johnson Sirleaf (2014): “This measure is intended to avoid tampering with the dead and contaminating water sources.”

Because of the burial culture, there are very few crematoria. Botswana has one crematorium operated by the Hindu Society and reserved for Hindu funeral services until recently. It is now open to everybody, irrespective of religion or beliefs. Zambia has no crematorium. Kenya has 18 crematoria spread out over the country. These crematoria are mainly operated for the large Indian Hindu community. Traditionally most Kenyans move their dead back to their ancestral village to perform religious burial rites. This becomes very expensive due to the high transport cost, while cremation locally costs much less. In spite of that, because of the belief that cremation interferes with the spirit and the ghost of the dead, it will take some time before Kenyans embrace the practice of cremation. Zimbabwe has only two crematoria, and in the capital city Harare only. Swaziland recently cremated the bodies of 30 paupers whose bodies were unclaimed.

Some of the crematoria are viewed as tainted by Ebola such as the Mergibi crematorium in Liberia about 50 miles from the capital city, Freetown. Because of the limits of the oven in the crematorium, some of the bones have to be ground to a powder afterwards. The training of the staff failed to instruct them to perform this process, resulting in unclaimed bones (Guardian African Network, 2015: “Families left haunted by Liberia’s Ebola crematorium”).

Similarly, these deceased should not be viewed by the family, in order to protect the health of the relatives and funeral home staff. In the case of the less hazardous group of diseases, if the family wishes to view/kiss their loved one goodbye, it can be allowed provided there is no risk of exposure to leaked body fluids. Note however that viewing in certain countries such as France can only be done with the authorization from the local police.

On the African continent, rampant disease spreads in communities due to traditional rituals, no cremation practices, no suitable crematoria, and the widespread practice of not adhering to universal precautions. Recommendations to handle exposure in these areas include: education in universal precautions,

including the correct use of personal protection equipment (PPE) and its use on-site, preparing suitable body bags or BioSeal on-site, immediate cremation if deemed necessary, and for staff that is exposed immediate testing and action according to test results and the organization’s SOPP.

Reference: “Guidelines for the Management of the Deceased Individuals Harboring Infectious Disease,” Dr Elizabeth Keane, Health Protection Surveillance Centre (2013) Ireland.

“The medical examiner’s guide for contaminated deceased body management” Randy Hanzlick et al., National Association of Medical Examiners, (2006) US.

This document is heavily based on the references cited above.

EXHUMATIONS

“The dead are to rest where they have been lain unless reason of substance is brought forward for disturbing their repose,”

Justice Cardozo, 1978



In general, most cultures over the centuries have not wanted their loved ones to be disturbed. Great effort was put in by the Egyptians dating back to 4,000 years ago (mastabas, pyramids of Sakara, Cheops, Chefren, and Mycerinos) and, in more recent years, in the 18th and 19th century (distaste for grave robbery even for anatomical teaching: “The Butchering Art,” Linsey Fitzgerald (2018)). But there are exceptions, such as the “Famadhana” (the turning of the bones) ritual performed in some rituals on Madagascar, where after several years of burial the bones of the deceased are exhumed, cleaned, and put in new “clothing” before reburial.

“Requiescat in pace” (R.I.P.) May he rest in peace. People are very reluctant to disturb the dead, unless there is a very good reason (Cardozo 1978).

Exhumation is the resurfacing/digging up the buried remains of a deceased.

Today there may be several reasons for exhumation:

- Public interest: criminal investigation, investigation of war-time atrocities, temporary mass grave after natural or man-made disaster, etc.
- Personal/family interest: reburial — mostly seen in our business
- Sanitary reasons: anthrax, temporary mass grave
- Medical research
- Archaeological interest



IN GENERAL, MOST CULTURES OVER THE CENTURIES DO NOT WANT THEIR LOVED ONES TO BE DISTURBED



A. Process

1. Request from family, next of kin, or executor of the deceased's estate
2. If related to investigation, the local authorities may not need consent from family
3. Local authorities issue a special license
4. Can only be conducted in presence of health official
5. Privacy screen
6. Personal protective equipment available such as tight-fitting mask, latex gloves, shoe covers, disposable gown, protective eye wear, etc.
7. Protect other burial plots
8. Soil samples taken in glass jars from four sides around the casket, and from above and under the casket

B. Exhumed Remains Are Placed in New Casket, Called a "Shell"

1. Wrapped in zinc lining and soldered
2. Casket screwed and label fixed
3. Reburial

C. Documentation Trail

1. Application form to the local authorities, including reason for exhumation request
2. Copy of death certificate and statutory declaration of relationship
3. Local public health certificate for the exhumation and reburial
4. Consent from cemetery management
5. Pay the administrative fee
6. If the intention is to cremate the exhumed remains, the authorities at the crematorium will need cremation permit; can only be obtained after 10 years of burial
7. Once permit is granted, it is valid for limited time only, e.g., three months
8. If death from infectious disease, e.g., tuberculosis and diphtheria, exhumation is only allowed after one year interment

D. Learning Points

1. You may receive a request once in a while, and family will expect your advice and guidance
2. Importance of privacy, respect, and dignity
3. Distressing time for family, and they may have unrealistic expectations
4. Re-grieving, opening up old wounds
5. Clear explanation needed on why and how

REPATRIATION OF MORTAL REMAINS: WHEN CHILDREN DIE

The death of a child is a very traumatic experience for the mother and the entire family and even worse when it happens while overseas, far away. In his book “Bodies in Motion and at Rest,” Thomas Lynch refers to “burying the future.”

A. Stillborn

1. A baby born after 24 weeks gestation (some states in US are considering lowering the gestational age limit to 20 weeks), without sign of life is considered a stillborn, since from that gestational age the baby is considered viable. If the baby is born between 14 and 24 weeks, it is called a miscarriage. If the baby dies within first 28 days of life, it is called neonatal death. However, the definitions vary from country to country, from state to state, from province to province. Some states in the US for example consider stillbirth after 20 weeks of pregnancy or more, or a weight of 400 g, or if the baby took a breath after birth, it is still considered stillbirth. In this case there is a legal requirement to have the baby cremated or buried in the cemetery. In South Africa, the cut-off date for burial permits or cremation permits is 26 weeks. Viability is not defined in the South African legislation, but is based on case law (S versus Molefe, 2012).
2. Most countries define the legal status of a fetus as “part of the body of a pregnant woman” and thus on its own has no constitutional rights. The products of a termination of pregnancy (TOP) are afforded the status of biological waste, and as such have no value. This gives no consideration to the feelings of the parents and family.
3. Sudden and/or unexplained deaths are subject to investigation, similar as for adults, and the investigation may or may not include an autopsy.
4. The Medical Certificate of Stillbirth can be issued by a doctor or midwife, which is similar to the cause of death document (COD) in adults. With this document, one of the parents can register the stillbirth within a certain period of time, which can vary from five days to 42 days. The relevant authority will be issuing a Certificate of Registration of Stillbirth.



5. Once this certificate is issued, the body can be released for burial or cremation to a funeral service if the family so desires, but it is not mandatory. The hospital can help the parents to dispose of the remains. The family must be given the opportunity to say goodbye without pressure from the hospital and in line with their religious and cultural practices.
6. If the family decides on cremation, and if crematoria are available in-country, the services offered may vary. Some allow collection of the ashes in an urn, others will scatter the ashes, others will bury them. It is thus important to discuss these options and communicate them to the funeral director.
7. If a third person is authorized to collect the cremates, they need clear written authorization from the family. If unclaimed, the ashes will be disposed of and records kept.
8. It is a good practice to obtain maternity and hospital records of the baby for future reference. These may come with an administrative fee.

B. From Newborn to Adolescence

1. How can somebody so tiny cast such a big shadow?
2. The administrative and logistic process of repatriation of a newborn or child is very similar to the processing of adults. It is important to acknowledge life by naming the baby.
3. Newborn are seldom embalmed.
4. Consider who will look after the other children, if any, and allow them to view the baby and grieve in their own space.



The arbitrary determination between stillbirth and neonatal death was highlighted in the Tim Loughton case (2016) HC Deb 13 October 2016 c505. A woman was pregnant with twins. One child was born beyond 24 weeks and was treated as miscarriage, the other survived beyond 24 weeks, but upon delivery was stillborn. The administration treated both children differently. According to law she had only one baby. Some countries in the world there are considerations to change the law to allocate the same status to all remains, regardless of how the pregnancy ended. This would allow but not mandate the final disposition of the remains in a culturally appropriate manner.

Ref: "Managing the remains of fetuses and abandoned infants: a call to urgently review South African law and medico-legal practices," L du Toit-Prinsloo et al, South African Medical Journal, 2016 106 (578-581).

REPATRIATION OF MORTAL REMAINS: MASS CASUALTY SITUATIONS

We define mass casualty as an incident where three or more staff members are involved, either injured, ill, or deceased. Most of the large mass casualty responses are coordinated on a government to government (G to G) basis. Private organizations play a minor role, until the remains have been identified and authorized to be released by the authorities. However, as part of their duty of care, organizations have the responsibility to prepare themselves for this eventuality. The emergency response plan and crisis management plans must include a section on arrangements for dead bodies, including multiple casualties as well as guidance on how to support surviving family members at the incident site or at home. The plan should also include equipment (e.g., PPE), human resources, utilization of volunteers, coordination with local authorities and agencies, and finances. It is advisable that these plans are regularly tested and updated.

If volunteers, company staff, or family members are involved in the retrieval of the remains from the incident site, consider safety first and non-interference with the ongoing rescue work. Because of the nature of the incident, these first responders will need psychological support, as well as fatigue management. After the M1185 crash in the Musi river in Sumatra, Indonesia, malaria chemoprophylaxis for family members and volunteers on-site was essential. Also important was the frequent rotation of volunteers. The remains – whole body or body parts – are to be treated with respect and care as demonstrated by the military and civilian authorities after the Mount Kinabalu, Malaysia landslide in 2016.

Communication on the sometimes misunderstood risk of infectious diseases is important. Bodies do not spread diseases, with the exception of VHF and HIV (annex 6) through direct contact with body fluids. Honest and caring information on the fate of loved one(s) is essential since the unknown and uncertainty are worse than bad news.

**HONEST AND CARING
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Treat the dead and bereaved with respect and compassion, to minimize the psychological impact of trauma (c.f., Marchioness incident (1989), reported in *The Guardian* 1 December 2000, *The Telegraph* 9 December 2000, and *The Guardian* 24 March 2001). Understand that cultural and religious desires drive the care of the bodies. To avoid cultural faux pas, engage religious leaders and community leaders.

If the organization has an IEAP, engage them early for psychological support.

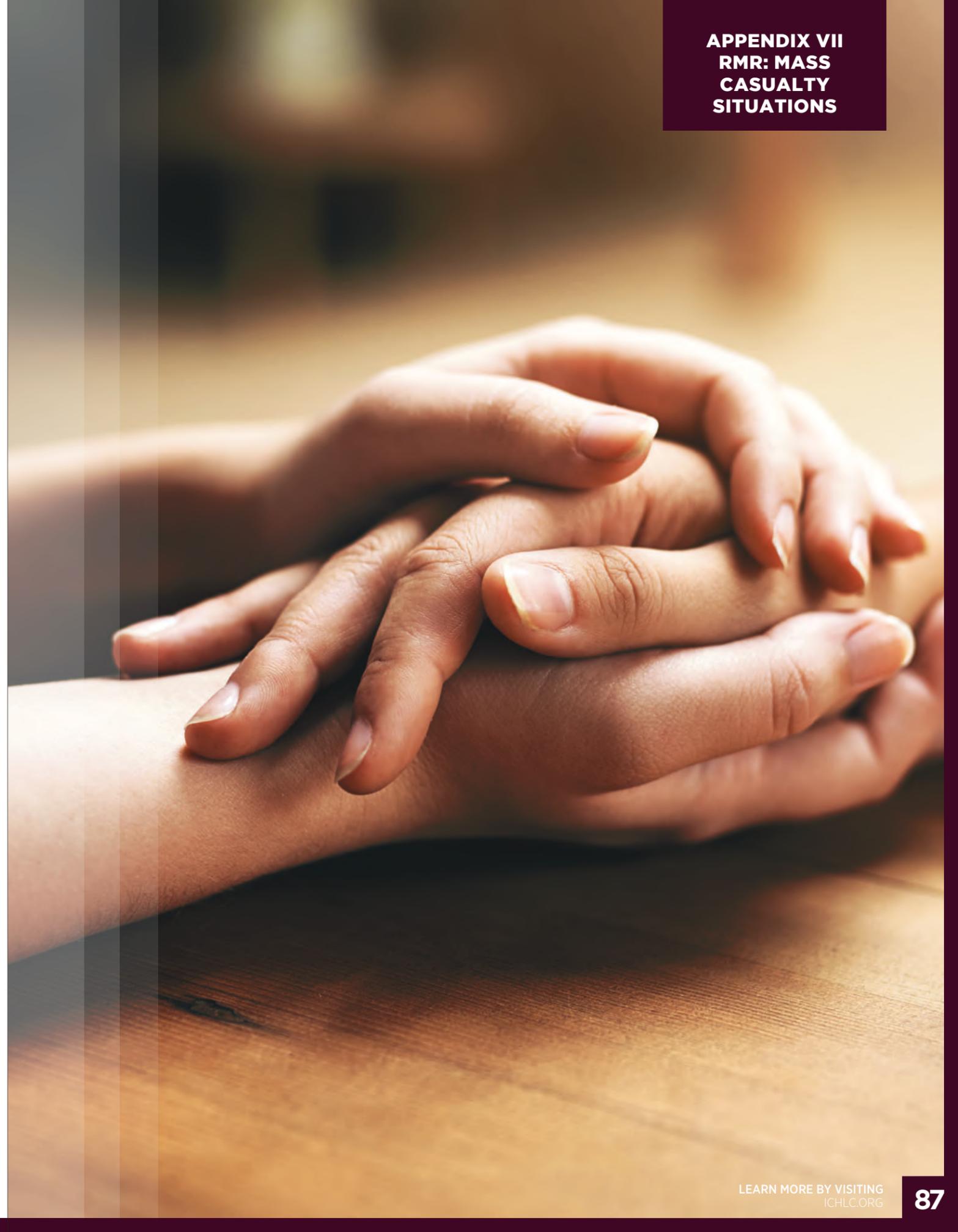
Many business or research operations are geographically located in tropical, hot, and humid climates. Under those conditions the exposed remains will decompose very fast if not protected. If possible, identify a shelter with a temperature of 2–4 C or 36–39 F. The use of dry ice is difficult to manage, causes toxic carbon dioxide, and can cause cold burns. Ice melts fast, produces waste water, which could be contaminated, and can damage the remains and personal belongings (papers, ID cards).

If the number of dead is large and becomes unmanageable, burial could be considered, even temporarily (flight MI 185 crash in the Musi river, Sumatra, Indonesia). Do not authorize cremation of unidentified bodies, as proposed post-tsunami incident in Phuket, Thailand, which was strongly opposed by the surviving local residents as well as foreigners.

The person who is communicating with the family should set realistic expectations on the identification process, and what to expect when viewing the bodies to be identified. Children should not be expected to aid in visual recognition of the death.

Keep records of missing staff by comparing the HR database and local company databases of the official registry of identified dead. Beware of multiple reporting in multiple locations of the same MIA person. Do not share information on those missing with unauthorized persons and media.

News media arrive soon after a disaster and provide a source of information for family and friends at the incident site and at home. Beware of privacy concerns in social media (news travels fast and is unfiltered). Journalists want to report timely and accurately, thus cooperate with them. Preauthorized biographies have been proven very valuable.



REPATRIATION OF MORTAL REMAINS: TRENDS, WHAT'S NEW

A. Eco-Friendly Funerals or Green Funerals

“Death, despite being the most natural of processes, is bad for the environment. Caskets, most of which are made from non-biodegradable materials, take up valuable space. Even if coffins were biodegradable, embalming liquids, which often contain carcinogenic formaldehyde, can leak into the soil. Cremation, during which remains are burned at 850 C comes with its own problems. According to research by the University of Melbourne, the process can create up to 350 lbs or 160 kg of greenhouse gasses per corpse, including the remains of the coffin.” (Time Magazine: “Aquamation: A Greener Alternative to Cremation?”)

1. Alternative Options

- a. Alternative burial options available: natural burial, eternal reefs (Eternal Reefs), space burials (Space Services), mummification, plastination (Body World exhibition by Gunther von Hagens), diamonds from cremates (LifeGem), memorial parks with “niche wall,” freeze-drying or promession, alkaline hydrolysis. Even Germany, which has strict burial laws, has seen some recent changes such as the establishment of private cemeteries, individualized farewell; Hamburg Football Club has graveyard specifically for supporters, etc.

Some of the reasons why people choose a non-traditional, green funeral is related to the damage to nature.

- i. Trees cut down for hard wood, leading to deforestation
- ii. Chemicals such as formaldehyde and solvents polluting the ground water
- iii. CO₂ transmission and the associated global warming due to fuel consumption of the aircraft when transporting remains
- iv. Limits on the available land (as living space) due to cemeteries, graveyards, etc.

b. Cremation

- i. One of the popular solutions is the standard cremation process; modern crematoria are fueled by propane or gas and generate temperatures about 870 - 980 C or 1,600 - 1,800 F for the duration of two - three hours
- ii. Purchase of a casket is not required: family can rent a casket, or if they wish, they can purchase a casket made of plywood or carton material
- iii. After the ashes have cooled, they can be put in an urn and scattered or put in a home urn (see discussion on culture above)



- iv. Although today cremation is widely accepted by various religions and cultures, it took 150 years for that acceptance
- v. Cremation still has large carbon footprint
- c. Natural or green burial
 - i. Entails the wrapping of the un-embalmed body in an eco-friendly, biodegradable shroud for burial in a natural setting that creates the least impact on the environment
 - ii. Natural method of preserving the body (time)
- d. Cardboard casket
 - i. May be suitable for local use, burial, or cremation, but this does not meet international standards for international transport such as IATA, ICAO, Strasburg convention
 - ii. If the family chooses a cardboard casket for local cremation or burial, the deceased is entitled to the same respect and care as for any other deceased
- e. Alkaline hydrolysis or chemical cremation or green cremation
 - i. What is it?
 - Use of water, potassium hydroxide, low heat, and pressure to reduce the body of the deceased to bone fragments and inert sterile liquid. The inert liquid does not contain DNA and, with the approval of the local wastewater treatment authority, can be discharged in the sewerage system
 - Bone fragments are pulverized to dust/"ash"; this can then be presented to the family members in an urn
 - Works only on protein/amino-acid-based materials (cannot dress deceased in synthetic materials)
 - Dental fillings remain intact; no release of mercury vapors
 - Smaller carbon footprint, thus more environmentally friendly (as evidenced based on work done by Elizabeth Keijzer of the Netherlands Organization for Applied Research)
 - Less costly: approximately half of the cost
 - Objections from religious organizations: since this is a similar process to cremation, the faithful who have objections to cremation will maintain these objections with regard to alkaline hydrolysis. In Judaism, the body is sacred, and the process of alkaline hydrolysis is seen as a desecration of the body. As one Jewish commentary stated, "it matters how the dead are treated. It might not matter to them, but it matters to us. And it matters to God" (Jeffrey Salkin, 2017),

DEATH, DESPITE
BEING THE MOST
NATURAL PROCESSES,
IS BAD FOR THE
ENVIRONMENT



- In the UK, there are no legislative provisions permitting or restricting the treatment of human remains using such new processes. Recently, one crematorium could not obtain a licence because of the potential impact on groundwater pollution. Similar objections prevailed during a senate hearing in New Hampshire, US. In 2008, the Cremation Society of Great Britain amended Its Articles of Association to allow for alternative methods of dealing with dead bodies.
- Alkaline hydrolysis was originally patented in the US by Amos Herbert Hobson in 1888. In the early 1990s, research on prions, which cause Creutzfeldt-Jakob Disease resulted in considering alkaline hydrolysis for animal disposal (Dean Fisher, Mayo Clinic in Minnesota). In the early 2000s, it was also suggested as an alternative for the management of human remains.
- To date, this is option is mostly restricted to the US, available in 14 states, and in three provinces in Canada; however, other countries such as the UK, France, and Australia (Melbourne, Gold Coast) are considering implementing this method of managing mortal remains. We can envisage within the next three to five years this method/process gaining popularity, particularly from those who are environmentally concerned.



ii. Problems and concerns:

- Not available in developing countries due to lack of expertise in the high investment cost in the equipment; the current investment is around US \$250,000
- Medico-legal concerns: as with cremations, all potential or actual evidence in a police investigation disappears; there is only a liquid left (complete annihilation)
- May not be as green as it is currently presented, because of the “grey energy” used due to body storage in buildings, staff needed, staff travel, etc.
- Regarding international acceptance, permitting for alkaline hydrolysis at home may not meet the export requirements of certain countries

US STATES ALLOWING ALKALINE HYDROLYSIS (2017)*

California, Colorado, Florida, Georgia, Idaho, Illinois, Kansas, Maine, Maryland, Minnesota, Nevada, Oregon, Vermont, Wyoming

*NOTE: At one time, alkaline hydrolysis was legal in New Hampshire (2006), but it was banned again in 2008. Attempt to re-legalize it in 2013 did not succeed.

- f. Promession
- What is it?
 - Deep freezing, developed by Swedish biologist Susanne Wiigh-Mäsak
 - Process:
 - Body in chamber: “coffin separation”
 - Cryogenic freezing at -196 C or -321 F
 - Vibration
 - Freeze drying
 - Metal separation
 - Collection of dry powder “ash”
 - Burial: in biodegradable box (made of corn starch), buried remains turn into humus/fertilizer
 - No scattering of ashes because it is organic material
 - Current status: proof of concept only (demonstrated in 2013)
 - Acceptance in principle by population in general in Sweden (where the process was conceived); legalized in South Korea due to broad definitions in law; interest from US, UK (Sevenoaks, Kent), Canada, the Netherlands, South Africa, and Vietnam but not tested yet
 - Objections/constraints same as for alkaline hydrolysis: high initial investment cost, religious and cultural objections from Catholic Church, Anglican Church
 - Experimental at this stage
- g. Learning points
- Change is constant and accelerating: cremation acceptable 150 years ago; alkaline hydrolysis 75 years ago; promession within 35 years?
 - Religious and cultural beliefs may prevail longer
 - Developed world first to accept new techniques; will be accepted later in the developing world; no assumption that acceptance here (West) = acceptance overseas; will still require doctor approval
 - Geographical areas respond differently: e.g., “not made here” attitude
 - Initial investment cost and lack of expertise prevent global implementation in developing countries

SOME OF THE
REASONS WHY
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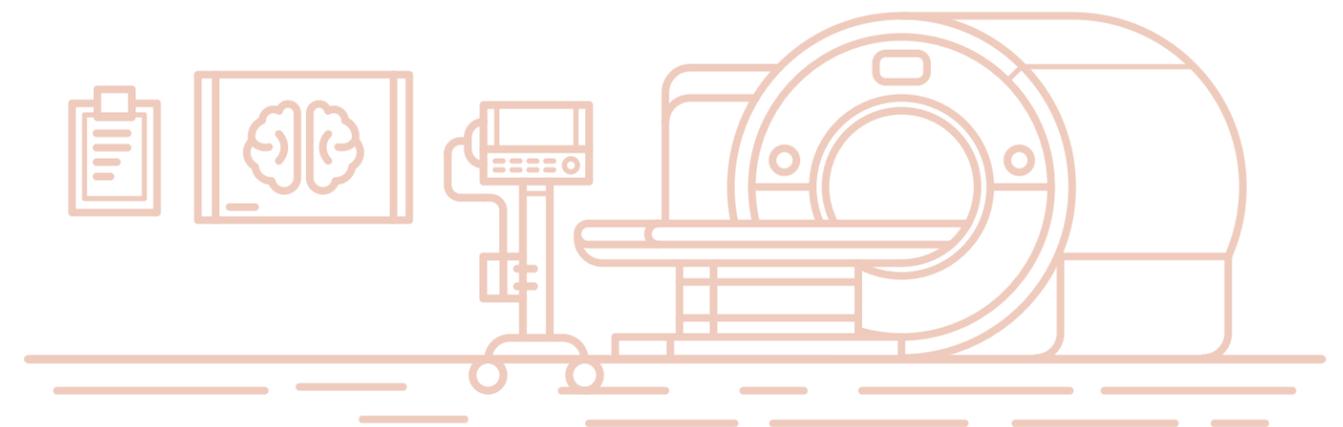




- b. Post-mortem computer tomography requires:
 - i. Equipment: CT scanner; special contrast; post-mortem ventilation; double contrast, including air; image guided biopsies; roller pumps similar to the ones used in heart-lung machines.
 - ii. Educated staffing: pathologist, radiologist.
 - iii. Standardized procedures: no standardized procedure worldwide.
- c. Current status
 - i. This service is currently available in Switzerland, where it is known under the name “vitropsy,” Japan, Denmark, Australia in the state of Victoria, and the UK in major centers in Leicester and Manchester, with plans to roll it out over the entire country; the UK is a big promoter of the service.
 - ii. The post-mortem CT scan service is developing very fast, with applications in natural and unnatural deaths, covering both adults and children. Although there is a growing literature promoting its use, evidence-based research has identified some of its deficiencies. The invasive autopsy still remains the gold standard. For example, the diagnosis of early myocardial infarction using this technology remains problematic; in pediatric non-accident injuries, techniques seem to overstate the number of fractures; scalp or temporal muscle cannot be assessed, however air embolism seems to be suitable for this technique.
 - iii. The studies done so far involve small numbers of bodies examined, and no double blind studies.
 - iv. Minimal invasive targeted coronary angiogram with CT scan able to determine the cause of death in 80% of cases.
 - v. “Modality minimal invasive autopsy: a feasible and accurate approach to post-mortem examination,” J. K. Fan et al, Forensic Science International, 2015, 195, 1–3 (but very small population, 22 cases only; larger studies needed).

B. Non-invasive and Minimally Invasive Autopsy

1. What is it?
 - a. Using radiological imaging techniques to visualize the remains after death.
 - i. The post-mortem computer tomography (PMCT) with or without contrast medium serves as an example.
 - ii. Based on the results of that investigation, the pathologist may proceed with a minimally invasive autopsy using endoscopic equipment, proceed with a limited or targeted autopsy of one or two organs, proceed with guided biopsies, or proceed to a full invasive autopsy.



**WE NEED TO
ENSURE THAT THE
POST-MORTEM
INVESTIGATION
USING NON-INVASIVE
AUTOPSY DOES NOT
DELAY THE RETURN
OF THE REMAINS
HOME**



- vi. Not suitable in all cases, e.g., pulmonary embolus.
- vii. Combination CT, CT angiography, and biopsies performed best (biopsies taken CT guided or minimally invasive: laparoscopic or thoracoscopic).
- viii. Combining CT and MR was best for non-invasive method, but minimally invasive method surpassed the non-invasive method (2015): Erasmus Ziekenhuis, Netherlands (large literature review study).
- ix. “Developing a new catheterization system and using two different contrasts to highlight the coronary arteries sets us apart from any other group,” Prof. Guy Rutty, Chief Forensic Pathologist, Leicester.
- d. Because of media reports, the family may have the impression that this investigative tool is the answer to their request for no autopsy due to religious or cultural affiliation. It is therefore of critical importance to communicate clearly the availability of the technique, its place in the current post-mortem examination, and the results so as to manage the expectations of the family and next of kin appropriately.
- e. In the UK, there must be an established tenet that an invasive autopsy is to be avoided, before any question on avoidance on Article 9 grounds arises.
- f. In assessing cases that may be suitable for this new technical development, we need to ensure that the post-mortem investigation using non-invasive autopsy does not delay the return of the remains home. There must be a reasonable chance that the non-invasive autopsy will be able to determine the cause of death, identify the deceased, etc. (meeting the autopsy requirements). To date, approximately 10% of the cases of non-invasive autopsy are followed by an invasive autopsy, the traditional way. Therefore the non-invasive autopsy cannot substitute for a full invasive autopsy if so required by the coroner or medical examiner. The non-invasive procedure must be performed without imposing additional financial burden.
- g. Legal framework:
 - i. See above EU, US, Australia, Singapore legal frame work.
 - ii. UK High Court backs the religious rights of Jews and Muslims to ask for a non-invasive or minimally invasive autopsy to be done (28 July 2015), Mr. Justice Mitting, Inner London Coroner Mary Hassell. Case of R Rotsztein versus HM Senior Coroner for Inner London North (2015).



- h. To be fully accepted on a global base, there needs to be a low-cost, mobile imaging device that can be used in developing countries; the radiographer is to be trained in using the device as well as the interpretation of the x-rays, with a solid quality assurance program to back them up. With that in mind, there are currently studies undertaken to validate non-invasive and minimally invasive autopsy compared to clinical autopsy, which is still the gold standard. Some of the participating countries include Kenya, Mozambique, Gabon, Mali, and Pakistan.



C. Global/International Death Certificate (FIAT)

1. There are some professional organizations and associations that would like to streamline the documentation requirements and process for the repatriation of mortal remains. Today these document requirements are fragmented and inconsistent among states/provinces and countries. The drive for this change is mainly coming from US professional organizations. There is less of a push for change within the European community, and even less in Australia and Asia. Therefore it looks like this initiative, which started as a global initiative, may be limited to the US or US and Canada only.
2. The professional organization FIAT/IFTA has proposed a repatriation document for international repatriation of mortal remains, which could be helpful in organizing the services. However the form is not universally accepted, including within the US and Canada.
3. Learning points:
 - a. Things are changing; keep updated
 - b. Some of the changes may look interesting at first glance; however, they may not be supported by evidence-based research, and this needs to be taken into consideration very carefully, particularly with regards to communication to the next of kin and family

SUMMARY

- A. Communication
 - 1. Understanding emotional reactions to death and grief
 - 2. Understanding the repatriation process
 - 3. Repeat communication to all stakeholders due to shock, shutdown
 - 4. Consistent communication to all stakeholders due to selective hearing
 - 5. Empathy, but keep distance
 - 6. Demonstrate dignity and respect to the deceased and survivors
- B. Expectation Management
- C. Cultural Understanding and Sensitivity
- D. Detail Oriented (the devil is in the details)
- E. Sound Updated Standard Operating Protocols and Procedures SOPP
 - 1. Covers (among other things): security, next of kin database, benefits, insurance policy wordings and limits, media control, safety, and quality assurance (QA)
- F. Treat the Case with Utmost Importance Due to High Internal and External Visibility
- G. Note the Impact on the Business of an Increasing Covered Population of Third-Country Nationals (TCNs) and National Staff with Religious and Cultural Expectations
 - 1. One staff policy?
- H. Establish a Solid Up-to-Date Network of Credentialed Providers to Help You
- I. Stay in Touch as the Business Environment Is Constantly Changing



