LOS ANGELES COUNTY
MEDICAL EXAMINER-CORONER

REQUEST FOR PROPOSALS
FOR A
CASE MANAGEMENT SYSTEM

APPENDIX B1 – USE CASES FOR FUTURE STATE CASE MANAGEMENT PROCESSES

NOTICE TO RFP PROPOSERS

THIS DOCUMENT DOES NOT STAND ALONE AND SHALL BE READ AND REVIEWED IN CONNECTION WITH ALL OTHER PARTS OF THE RFP.

THIS APPENDIX A MAY BE UPDATED TO REFLECT THE SELECTED PROPOSAL PRIOR TO THE NEGOTIATION OF THE RESULTANT CONTRACT.

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1.0 Background

The Los Angeles County Department of Medical Examiner-Coroner (DMEC) seeks to improve its case management processes. Central to this effort is an update to DMEC's case management system (CMS).

DMEC is a critical, complex department serving Los Angeles County. It processes approximately 19,000 cases per year with a $38M budget and 248 Full-Time Equivalent (FTE) staff. Recent process improvement projects have resulted in meaningful lessons learned by the department, including the need for cross-unit collaboration, the importance of clear project requirements, and the value of involving subject matter experts (SMEs) through all aspects of case management and CMS improvements.

1.1 Business Process Improvement (BPI) Vision

In 2019, a business process improvement project (BPI) effort aligned with DMEC's Strategic Plan for 2018-2021 aimed to deliver meaningful, positive outcomes across each goal defined therein:

Goal #1: Become a premier resource for Medical Examiner-Coroners nationally.

Goal #2: Develop the workforce of the future.

Goal #3: Reimagine the workplace of the future.

Goal #4: Improve the customer experience.

Within the first goal, DMEC prioritizes the need to expand and maintain accreditation. Specifically, DMEC seeks to achieve full accreditation status with the National Association of Medical Examiners (NAME). Primary objectives and improvement targets include the following:

- 90% of autopsies and external examinations performed within 72 hours from time that medical examiner jurisdiction is accepted.
- 90% of reports of all postmortem examination completed within 90 calendar days from time of autopsy.

Although the scope of DMEC's BPI effort was designed to engage stakeholders on all potential areas for improvement, there was a primary focus on process improvements that will deliver to NAME standards, increase organizational efficiency and throughput, and eliminate waste in the lifecycle of a case.

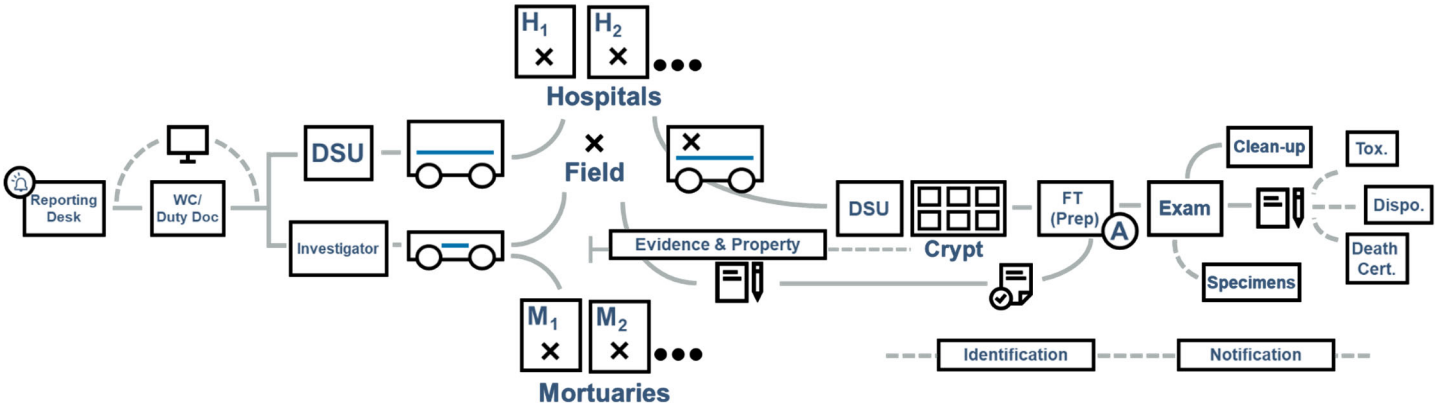
The department's leadership and subject matter experts (SMEs), identified a future state vision comprised of specific, impactful improvement opportunities that is captured in High Level Design for Future State case management processes. This vision for future state case management should significantly inform Contractor responses to DMEC's CMS RFP.

This use case document was updated by the Department after the 2019 BPI effort, subsequent pilots of business process changes and additional identification of future state improvement opportunities.

1.2 DMEC Processes and High-Level Future State Design

The Life-Of-the Case (Figure 1) provides a conceptual view of the entire lifecycle of the case starting from a phone call to the reporting desk and ending with the disposition of the decedent. This conceptual Life-of-the Case view was analyzed for bottlenecks and improvement opportunities.

Figure 1. High-Level Life of the Case View



The following Key Improvement Opportunities were developed in partnership with DMEC stakeholders:

1. Improve Reporting Desk processes to capture additional information (i.e. medicolegal) to better position Investigators to further investigate the death, improve dispatch time, and reduce Non-Jurisdiction Cases.
2. Improve customer (Next of Kin; hospital staff) satisfaction and NAME compliance by establishing a new process for hospital pick-up ("Bedside Pick-Up"). Dispatch staff to the scene immediately after death for all jurisdiction cases.
3. Reduce backlog build-up and improve NAME compliance by increasing weekend staffing levels (Staff to 90th Percentile).
4. Reduce time from pickup to start of examination by streamlining the report requirements (preliminary vs. final report).
5. Improve time from arrival at DMEC to exam completion by changing the decedent preparation processes and reducing unnecessary movements into and out of the crypt (View Intake/Prep/Exam as Manufacturing).

In addition to specific improvements, the following themes emerged from the BPI effort as central to DMEC's process redesign:

- Introduce a single, electronic system of record for back-end case management.
- Overall, reduce manual and/or paper processes throughout the life of a case.
- Enable field staff by providing mobile capabilities.

2.0 Approach & Methodology

2.1 DMEC Stakeholders

The future state Medical Examiner-Coroner systems are intended to provide an improved process for all departmental functions across the entire lifespan of a decedent case (from call to disposition). As such, all use cases were originally documented with the intent of representing all stakeholders in the Life-of-a-Case including:

- DMEC Executive Steering Committee
  - Chief Medical Examiner-Coroner
  - LA County CIO Office
  - Chief Deputy Director
  - Chiefs
    - Administrative
    - Information Technology
    - Forensic Laboratory
    - Forensic Medicine
    - Operations
    - Public Services
- DMEC Subject Matter Experts
  - Administrative
  - Criminalist/Laboratory
  - Death Certificate
  - Decedent Services Unit
  - Disposition
  - Evidence
  - Forensic Medicine
  - Identification and Notification
  - Information Technology
  - Investigations
  - Medical Transcribing
  - Personal Property
  - Records
  - Reporting Desk
- External Departments/Agencies
  - LA County Departments
    - Department of Health Services
    - Department of Public Health
    - District Attorney
    - Information Systems Advisory Board
    - Internal Services Department
    - Public Defender
    - Registrar Recorder/County Clerk
  - Law Enforcement Agencies (LEAs) (e.g. LASD, LAPD)
  - CA Department of Public Health
  - Other ME-Cs across the country

2.2 Use Cases

The goal of these use cases is to capture the detailed design for the future state case management processes including business process changes and system capabilities to support the future process.

Use cases are used to provide staff, executives, and system vendors with a common overview of future processes and required system capabilities. The purpose of the use case view is to illustrate “what” the system is expected to do, not “how” it is expected to do it. The use case documentation does not stipulate a particular system design. Rather, the use case methodology is a structured approach used to capture system requirements and it includes the steps listed below.

1. State the purpose and objective of the use case.
2. Identify actors, roles, and scope.
    - Determine all potential actors of the new system or individuals who will use the system.
    - Identify the Process Owner or the staff responsible for the business process.
    - Identify a list of use cases.
3. Document the use case flow.
    - A use case is described using simple narrative language to capture what the actor/user does and what the system is expected to do.
    - The use case should represent the complete course of events of the business process (e.g. “Process a Decedent Case”).
    - The use case must have a well-defined starting point and well-defined endpoint (Pre-Condition and Post-Condition).
    - The endpoint of the use case should be a meaningful service delivered or business outcome.
    - Alternate flows or optional courses of events are documented so they can be well supported.
    - In addition, future process targets and measurements have been captured (Cycle Time & Performance Metrics).

As part of the use case flow, the following is documented:

- Use Case Number and Name
- Purpose & Objectives
- Actor/Role
- Process Owner
- Trigger Events
- Pre-Condition
- Post-Condition
- Use Case Flow
- Alternate Flows
- Cycle Time & Performance Metrics
- Required Capabilities in Future State System

2.3 Actors

The following DMEC roles have been identified as actors in the following use cases:

- Reporting Desk (RD) Clerk
- Watch Commander (WC)
- Investigator
- Forensic Attendant (FA)
- Property Unit Staff
- Evidence Unit Staff
- “Staff” – This term is used when any member of the department could be the actor or a specific bureau or unit could not be identified.
- Supervising Deputy Medical Examiner (DME)
- Forensic Technician (FT)
- Deputy Medical Examiner (DME)
- Criminalist (Field and Laboratory Staff)
- Identification Investigator
- Notifications Investigator
- IDNOT Sections Lieutenant
- Disposition Clerk
- Public (any external user; e.g. Next of Kin (NOK), family, Law Enforcement Agency, news media)
- Public Information Officer
- Public Services Staff
- Certifications Staff

2.4 DMEC Use Case Summary Table

Table 1. Complete List of Use Cases

Use Case # - Use Case Name	Description
3.0 Reporting Desk	Use cases related to the 24/7 coverage of incoming calls to DMEC (case and non-case).
3.1 – Take Call, Triage & Initiate Case	RD Clerk answers the phone, records information from the call, and creates a case.
3.2 – Dispatch Investigator and Coordinate with Decedent Services Unit (DSU)	Watch Commander assigns and dispatches an Investigator and DSU staff (FA) to newly created cases, ensuring that investigative staff handles all cases to NAME standards.
3.3 – Update Schedules and Notify Parties (WC)	Watch Commander updates schedules and assignments throughout the day as factors impact individuals' abilities to manage caseload.
3.4 – Manage Counter Signouts	Watch Commander coordinates all upcoming Counter Signout cases with participating mortuaries on a case-by-case basis, as received via reporting desk.
4.0 Investigation & Transportation	Use cases related to the dispatch, assessment, and retrieval of decedent cases.
4.1 – Conduct Investigation	Investigator completes a death investigation.
4.2 – Pick-Up Decedent	Forensic Attendant picks up decedents and returns them to DMEC for intake.
4.3 – Pick-Up Property & Evidence	Investigator (and others) collect and manage property and/or digital/physical evidence.
4.4 – Approve Preliminary Report	Investigation Supervisor reviews and approves Preliminary Report to allow DME to view.
4.5 – Approve Investigation Report	Investigation Supervisor reviews and approves complete Investigative Summary Reports.
5.0 Manage Property & Evidence	Use cases related to collecting, managing, and disbursing decedent property & evidence.
5.1 – Inventory & Manage Property	Inventory decedent property and manage chain of custody while in DMEC possession.
5.2 – Release Property	Release property to eligible successor or otherwise dispose of property.
5.3 – Inventory & Manage Physical Evidence	Inventory physical evidence and manage chain of custody while in DMEC possession.
5.4 – Release Physical Evidence	Release physical evidence to authorized agencies.

Use Case # - Use Case Name	Description
5.5 – Manage Digital Evidence (Photos, X-rays, CTs)	Inventory digital evidence and manage chain of custody while in DMEC possession.
5.6 – Share Digital Evidence	Share digital evidence files to the appropriate parties (e.g. Law Enforcement Agencies).
5.7 – Dispose of Evidence	In accordance with retention policies, dispose of physical and digital evidence.
6.0 Autopsy/Exam & Medical Report	Use cases cover decedent processing at FSC and completing report.
6.1 – Unload and Check-In Decedent (“Receiving”)	Forensic Attendant processes decedent through weight, overhead photo, and finger printing.
6.2 – Determine Prep Type & Assign Exam	Ops Doc uses case notes and Preliminary Report to categorize and anticipate case types (both required prep and expected autopsy/exam type).
6.3 – Update Autopsy/Exam Schedules and Notify Parties	Ops Doc monitors case and staffing updates in real-time to manage DME/FT schedule.
6.4 – Prep for Autopsy/Exam (including X-ray, CT & Exam Station)	Forensic Technical (FT) processes decedent through any X-rays or CT scans, and prepares for an autopsy with a DME.
6.5 – Conduct Autopsy/Exam, Draft Report (Ready for Release)	DME and FT conduct autopsy.
6.6 – Write & Complete Autopsy Report	DME creates test orders and writes Medical Report.
7.0 Process Specimens & Test Orders	Use cases related to laboratory processing (internal and external) of decedent specimens.
7.1 – Send and Request Test Orders (Toxicology, Histology, Medical Evidence, Tool Marks, etc.)	DMEs send test orders alongside decedent specimens for laboratory processing.
7.2 – Receive Specimens and Test Orders	Criminalists in the forensic laboratory receive specimens and corresponding test orders from DMEs.
7.3 – Process Specimens, Evidence & Generate Test Results	Criminalists process specimens/evidence, coordinate external processing, and return test results to DMEC staff.
8.0 Disposition, Release Planning & Release	Use cases related to disposition, release, planning and release of decedents, including DOE cases and other unclaimed circumstances.
8.1 – Identification of DOE Cases	Identifications Investigators manage extended identification processes required for several types of DOE cases.
8.2 – Notifications	Notifications Investigators manage processes to identify and notify family/NOK.

Use Case # - Use Case Name	Description
8.3 – Track Decedents' Disposition & Release	Notifications Clerks manage disposition of decedents throughout post-autopsy/exam lifespan and DMEC releases decedent.
9.0 Manage Public Requests	Use cases related to DMEC service of the public and necessary data reporting, separate from the reporting and sequential processing of decedent cases.
9.1 – Perform Self-Service Inquiry	Members of the public contact DMEC with requests for public-facing services and frequently asked questions (beyond decedent report initiation).
9.2 – Manage External Request	DMEC staff manage a variety of incoming requests from the public, media, and various stakeholders (beyond decedent report initiation).
9.3 – Create Death Certificate	Certifications staff create an official copy of the Death Certificate upon request.

3.0 Reporting Desk

This section of use cases covers DMEC's obligation to answer and respond to all reported deaths and calls from the public, as received over a 24-hour day, seven-day per week operation. In addition to answering and triaging calls, the Watch Commander and DSU Supervisor oversee respective "Dashboards" to manage their staff and to ensure that cases under DMEC jurisdiction are being assigned to on-duty staff and dispatched in a timely manner.

This section includes the following use cases:

Table 2. Reporting Desk Use Cases

Use Case # - Use Case Name	Description
3.0 Reporting Desk	
3.1 – Take Call, Triage & Initiate Case	RD Clerk answers the phone, records information from the call, and creates a case.
3.2 – Dispatch Investigator and Coordinate with DSU	Watch Commander assigns and dispatches an investigator and DSU staff (FA) to newly created cases, ensuring that staff handles all cases to NAME standards.
3.3 – Update Schedules and Notify Parties (WC)	Watch Commander updates schedules and assignments throughout the day as factors impact individuals' abilities to manage caseload.
3.4 – Manage Counter Signouts	Watch Commander coordinates all upcoming Counter Signout cases with participating mortuaries on a case-by-case basis, as received via the Reporting Desk.

3.1 Take Call, Triage & Initiate Case

Purpose & Objectives:

Provide 24/7 coverage to answer incoming phone calls (e.g. decedent reports, case updates, and ancillary calls), record call data, determine jurisdiction, and initiate next steps.

Actor/Role:

- Reporting Desk (RD) Clerk
- Supporting Actors: Investigator, Watch Commander (WC), Duty Doctor, Caller

Process Owner:

- Chief of Operations

Trigger Events:

- Someone places a call to DMEC.

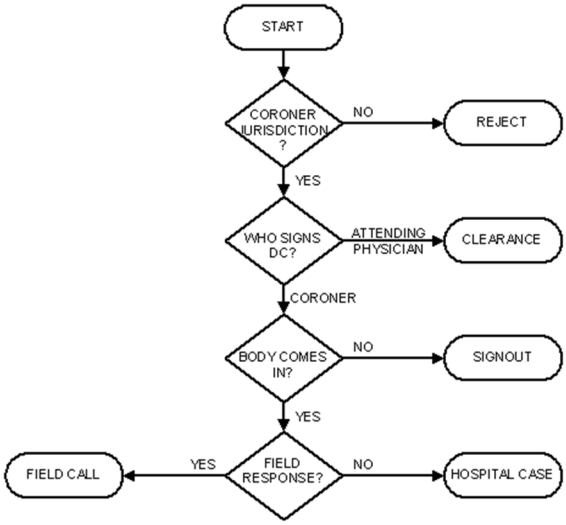
Pre-Condition:

- RD Clerk is logged into the system.
- Next Investigator is available to assist with call.
- Duty Doctor and WC are available to assist with decisions (e.g. jurisdiction).

Post-Condition:

- RD Clerk has collected basic information based on questionnaire template
- Decision around jurisdiction has been made and case is created. See Figure 2. Jurisdiction Decision Tree.
- Investigator has spoken with Caller regarding death and entered information into system.
- Caller has been provided a pick-up window and list of required items due to Investigator upon pick-up (hospital/mortuary).
- Investigator who takes the call has confirmed his/her assignment to the case.
- WC has been notified of new death investigation case to assign, confirm, and dispatch.
- NAME exceptions have been recorded and flagged.
- Case number has been created including unique identifies for decedent (e.g. barcoded body tags) are ready to be produced, and any required paper forms (e.g. call sheets) are ready to be produced.
- Data around call arrival, call duration, etc. and call information have been recorded.

Figure 2. Jurisdiction Decision Tree



RD/Investigator will follow a similar decision tree as shown above.
Note: In future state, Hospital cases will be handled as field response.

Use Case Flow:

1. Reporting Desk (RD) Clerk answers an incoming phone call.
    a. It is anticipated that DMEC will have an Interactive Voice Response System to allow for routing of calls to the most appropriate person (e.g. Press 1 for decedent, Press 2 for gift shop, Press 3 for Public Administrator…). Within a "decedent" option, callers shall be further directed to the most appropriate party related to the case (e.g. RD/Investigator for case creation, County Morgue for status inquiry).
    b. System shall provide modern call center technology (Private Branch Exchange (PBX)/Automatic Call Distribution (ACD)) to record the call and associated data.
2. RD Clerk confirms that Caller is reporting a death. RD Clerk collects Caller information (e.g. name, call-back number, agency). In cases of newly reported deaths, RD Clerk opens a "New Case/Record" and initiates transfer of call to Investigator.

a. The system shall generate a new case number and present the case questionnaire screens.
   Note: Data collection will closely resemble the current state fields documented in the “Case Initiation Reporting Desk” tab of the CME screenshots spreadsheet.
   i. Materials required upon pick-up will also be established on the call and recorded in the system (e.g. blood specimens).
b. If call is not related to a death, then the system shall allow the RD Clerk to complete the call or escalate (transfer) the call for follow-up with the appropriate party (e.g. PIO, other inquiries for information). See Alternate Flows.
c. The system shall maintain a list of Investigators who are available to take calls (See Use Case: Update Schedules and Notify Parties (WC)).
   i. The system shall support call routing to Investigators’ mobile devices.
   ii. The system shall provide mobile capability for RD/Investigator forms, allowing Investigators to take calls and record Caller info from the field.
   iii. The system shall allow Investigators and/or Investigation Supervisors to change their availability (subject to permissions/user roles/approval)– that is, if an Investigator is busy, then he/she should not be listed to the RD Clerk as available to take a call (See Use Case: Update Schedules and Notify Parties (WC)).
   iv. The system shall display the number of cases currently open and assigned to each Investigator (“how many cases down”). If possible, this shall incorporate individual backlogs into case assignment decisions.
d. The system shall assign “next up” Investigator, transfer the call to him/her via warm hand-off, and provide him/her with the initial call information.

3. Investigator collects pertinent info from Caller to complete the Case Questionnaire.
   a. The system shall provide an intuitive display of required fields.
   b. The system shall provide search capabilities to identify whether a current call is about an existing case, based on text search and structured data fields (e.g. “missing right arm”, date, location). See Alternate Flows.
4. Investigator establishes service level agreement (SLA) commitment (“service window” for pick-up). By default, the Investigator and Forensic Attendant will be available, immediately dispatched and arrive at the location within two hours of the call.
   a. The system shall record that the Investigator provided service window pick-up time information to Caller and that the Caller agrees to the window.
   b. The system shall provide access to a driving directions mapping capability (Google Maps or similar) to check traffic conditions and calculate expected travel time.
   c. The system shall display the number of available Investigators and Forensic Attendants who are ready to dispatch.
      Note: If no staff is available to fulfill the two-hour window, then the system shall show expected number of available staff in the following two-hour window, etc.
   d. The system shall incorporate additional factors into the service window determination. These factors include, but are not limited to:
      i. Investigators/Forensic Attendants’ proximity to scene
      ii. Scene proximity to satellite, field offices
      iii. Case alignment with specific Investigator’s skill level or expertise
      iv. Case “reservation” or designation for training purposes (Note: In some cases, a service window may need to be broken in order to benefit a trainee/training team)
5. Investigator completes call.
   a. The system shall notify WC of the new case and assignment.

b. The system shall update the case with a timestamp to be used for NAME reporting (Case Accepted).

Alternate Flows:

- Cannot Determine Jurisdiction:
  - Investigator conferences Duty Doctor and completes the call (determines jurisdiction).
    - The system shall provide a similar warm hand off capability for Duty Doctors as is provided to the next Investigator up from the RD Clerk.
  - RD Clerk shall have 24/7 access to a DME to answer questions regarding jurisdiction and additional input for case handling (e.g. Counter Signout designation; decision to bring a body in for DME examination).
    - The system shall support communication between RD Clerks and DMEs (Duty Doctor or "on-call DME", depending on time of day and availability).

- Non-Jurisdictional Call:
  - RD Clerk confirms non-jurisdictional status and closes case (on questionnaire screen). RD Clerk also has the option to transfer the call to an Investigator, who will confirm non-jurisdictional status and close the case.
  - The system shall generate a case number and record report of death.
  - Current policy to designate a "50000 number" may be replaced by a single, sequential case numbering approach.
    - The system shall have standard description fields to identify jurisdiction vs. non-jurisdiction cases.
  - The system shall flag the case for Duty Doctor review within 24 hrs. Note: The decision by Duty Doctor may result in a jurisdictional change.
  - The system shall store information for tracking purposes including information currently updated on Form 1C.
  - If an Investigator is handling the call when non-jurisdiction is determined, then the system shall automatically reflect he/she is now available when the call ends.

- No pickup required / field signout case:
  - The Investigator taking the call from the Reporting Desk may record information from a hospital about the death such as traffic, overdose with survival > 24 hours at hospital, and availability of hospital blood specimen.
    - The system shall allow the Reporting Desk or Investigator at time of case creation to record information about the death such as such as traffic, overdose with survival > 24 hours at hospital, and availability of hospital blood specimen.
  - The Investigator may indicate that the case likely does not require the DSU to pick up and can be released or signed out in the field. See alternate flow in 3.2 Dispatch Investigator and Coordinate with DSU.
    - The system shall allow the Investigator to indicate at time of case creation that the case likely does not require pick up by DSU and can be released or signed out in the field.
- Ancillary Call (not reporting a death):
  - RD either answers inquiry or transfers call.
    - General Inquiry: The system shall provide routing and transfer capabilities to public-facing divisions (e.g. educational outreach, gift shop).
    - Law Enforcement Agency (LEA) requesting case/autopsy/exam status:

- The system shall provide very strong search capabilities for an RD to locate an existing case and the status of the case, e.g., scheduled for autopsy at 9 am.
- The system shall provide routing and transfer capabilities to case processing parties (e.g. assigned Deputy Medical Examiner (DME)), who will have visibility into case status.

- Unprepared Hospital/Mortuary or Not Ready Field scene:
  - If a hospital/mortuary/field Caller cannot commit to releasing the body within the Investigator's pick-up window (up to four hours from time of call), then the Investigator will record the reason, flag the case as a NAME exception, and transfer the call to WC ("warm hand-off" to confirm when the Caller's agency will be ready for DMEC pick-up, or to communicate that he/she will need to call back when ready). Exceptions will be tracked including organ procurement and other external delays.
    - The system shall record exception reasons (e.g. organ procurement, radiation exposure, special operations) from immediate pick-up.

- Follow-Up Caller:
  - If an associated party is calling with updates to an ongoing case or a previously rejected case, then the RD Clerk will update the record and/or transfer the call to the appropriate party (e.g. assigned Investigator).
    - The system shall check when a user tries to create a new case if the case has already been created an alert the user to the existing case record to update.
    - The system shall identify potential duplicate cases.
    - The system shall allow an authorize user to confirm potential duplicate cases and merge the records into one case file.
  - For homicide cases, first and second calls will be recorded and clearly identified on the case record. This includes case appearance on a Case Backlog List.
    - The system shall track updates to previously rejected cases.
    - The system shall track updates to previously reported cases.

- Potential Change in Jurisdiction Call:
  - The system shall support jurisdictional updates for specific cases.
  - For example, a decedent's doctor may call to decide whether or not to sign the Death Certificate. The system shall track transfer of these calls to the appropriate staff and record timestamps of case updates.

- Mortuary Caller:
  - The RD Clerk will search case records to check whether the decedent's death has been reported and recorded in the system.
  - The system shall conduct a real-time search as the RD Clerk enters decedent name, Date of Death, and Date of Birth.
  - RD Clerk and/or Investigator will provide necessary information to facilitate Counter Signouts. The system shall provide scheduling capabilities, including for Counter Signouts.
    - If the Mortuary is unable to bring in the body, then the case should be tagged as a NAME exception and assigned to an Investigator (via WC).
    - Note: Mortuary signout cases that require an Investigator to drive to a mortuary and conduct an external examination should be reduced in the

future with treating all Hospital cases as Field calls. All calls will be treated as Field calls in the future including Mortuary Signouts.

Cycle Time & Performance Metrics:

- Number of Calls - Per DMEC staff estimates: 100 calls per day (36 cases created in CME per day at 90th percentile); 5-15 minutes per call duration before calls are transferred to WC for triage/assignment/dispatch
- Track hospital compliance with release windows
- Track reasons for decedent unavailability (for NAME reporting purposes)
- Time of call vs. agreed upon pick-up time

Required Capabilities in Future State System:

- As permissions allow, RD Clerks should have visibility to case/autopsy/exam status, along with search capabilities via multiple fields (e.g. decedent name, time of death, location of death).
- All calls will be classified and saved in the system (recorded data includes time of call, duration, and caller info).
- Provide a capability to identify and track organ and tissue procurement cases, as well as cases where DMEC staff is unable to make a pick-up due to external delays.
  Note: Provide this capability to RD Clerks, Investigators, and Forensic Attendants, as delays may be realized at various points between call and pick-up.
- Unique call numbers shall be created sequentially—all calls regardless of type.
- Ability to generate reports on all cases and sort by type.
- Record call information (time of call, length of call, abandoned call, time of duty doctor notification, etc.).
- Capture an audit trail for case updates.
- Change and update jurisdiction on existing case records.
- Conference Investigator/Duty Doctor into initial call.
- Record non-jurisdictional call info and initiate associated workflows.
- Provide strong search capabilities to locate unidentified decedents' case records (by location, date of death, type of death, body characteristics ("missing arm"), etc.).
- Associate follow-up calls with initial call/case record.
- Ability to merge case records in case of multiple reports of the same decedent.
- Track transfer of calls.

3.2 Dispatch Investigator and Coordinate with DSU

Purpose & Objectives:

The Watch Commander (WC) owns the processes for assigning Investigators and DSU staff and dispatching staff from the moment of call to decedent arrival (or Signout completion). Role is analogous to that of an air traffic controller. WC is responsible for case management until decedent arrives at Forensic Science Center (FSC) (on-time, fulfilling SLA), working with autopsy/exam staff to keep them informed and prepared to take over, and monitoring completion of investigative reports.

The WC is responsible for ensuring that cases are assigned to Investigators and DSU staff based on committed pick-up window, staff availability, and daily workload.

The WC monitors the compliance with NAME standards and is responsible for dispatching personnel to meet commitments and satisfy NAME standards.

Actor/Role:

- Watch Commander (WC)
- Supporting Actor: DSU Supervisor

Process Owner:

- Chief of Operations

Trigger Events:

- A case is created within DMEC jurisdiction and WC is notified.
- Jurisdiction changes resulting in DMEC jurisdiction.
- Investigator is assigned to a case.
- Case is created but Investigator does not take assignment. See Alternate Flows.
- DSU Supervisor is notified that case has been created and assigned to Investigator.
- Criminalist is requested, if needed.

Pre-Condition:

- WC and Investigators are logged into the system, tracking staff statuses in real-time.
- DSU Supervisor is tracking case statuses and Forensic Attendant (FA)/van locations.
- Case is active and DMEC has accepted jurisdiction.
- Case information from initial call to RD is available for review.
- On-duty Investigators (and vehicles) are known, along with status, availability, location, and skill levels. Investigator statuses may include, but are not limited to the following:
    - Idle; Assigned to Case; En Route to Site; In Field – Responding; In Field – Clear and En Route to FSC; Communicating Preliminary Report; Finalizing Case Report
- Investigator has system access via mobile equipment (e.g. tablet, laptop).
  Note: CME provides remote access capability today, but DMEC is interested in a tablet-like future solution with touch screens, simplified data entry, and real-time updating capability.
- WC monitors current staff scheduling, upcoming shift schedule, and actual staff availability of Investigators, FAs, and Criminalists (See Use Case: Update Schedules and Notify Parties (WC)). Staff levels will be at a level to meet the 90th percentile of expected caseload to minimize impact of staff absences, sick days, or additional variations in caseload and calls (like police, fire stations, etc.). The system shall track and display the following:

- Daily schedule of staff, along with individuals' status/availability
- Case information, case status, and resource statuses ("Dashboard")
- Case lifespans and automatically generated flags on cases that are nearing NAME targets (or expired)
- Resources that will become available soon (e.g. +2-hour window)
- The time since report and time left to meet objective (e.g. NAME 48 hr. requirement).

Post-Condition:

- Case has been assigned and staff dispatched/assigned (until case completion; Investigator, FA, Criminalist).
- Case and resource statuses are up-to-date.
- The system has created information in "INVESTIGATOR'S CASE ASSIGNMENT FORM" and "TRANSPORT DRIVER MESSAGE" (DSU form), and Investigator and FA have received or confirmed receipt of information.
    - System shall allow print-out of these forms.

Use Case Flow:

1. WC is notified of a new case that needs assignment and dispatch or sees a backlog list of cases needing assignment and dispatch.
    a. The system shall display the case on the screen alongside cases that were scheduled for next pick-up window.
2. WC reviews the case information and confirms availability of Investigators to meet the promised pick-up window. WC checks the schedule of DSU staff for pickup. WC shall have similar visibility to DSU staff and vans as is available for assigning an Investigator.
    a. If staff is not available, then WC or investigator will contact the reporting organization (Caller) and plan an alternate pick-up window. See Alternate Flow.
    b. The system shall maintain a queue/schedule of all yet-to-be assigned cases and agreed pick-up windows.
3. For immediate investigation/pickup, WC confirms Investigator is assigned. WC confirms DSU Supervisor has assigned and dispatched FA. WC can also assign and dispatch FA for pick-up.
    a. The system shall update the case with names, roles, and responsibilities of assigned staff.
    Note: WC may need to coordinate with DSU Supervisor to assign FAs.
    b. The system shall initiate a workflow and notify all critical staff.
    Note: Staff is expected to acknowledge receipt of case assignments within a pre-defined time. If this has not happened, then the system shall notify WC to take action.
4. WC views that Investigator and FA have confirmed assignment to the case and update to their status (in route, etc.) (See Use Cases: Conduct Investigation and Pick-Up Decedent).
    a. The system shall display status update when Investigator and FA have confirmed assignment to the case and update their statuses accordingly.

Alternate Flows:

- Insufficient Resources for Caseload:
    - If current resource availability cannot accommodate workload to deliver on pick-up windows, then WC must escalate to leadership.

- Investigator Absence:

- If an investigator does not show up, or leaves a shift early, then WC updates staff status manually in the system (See Use Case: Update Schedules and Notify Parties (WC)).

- Signout Cases:
  - The system shall track cases requiring Investigator response without FA response.
  - Counter Signouts will be scheduled for decedents currently in mortuary possession that require an external examination (See Use Case: Manage Counter Signouts).
  - In addition to identifying and processing Counter Signouts, the RD Clerk and Investigator receiving calls shall be able to screen for hospital cases that do not require examination at DMEC (e.g. traffic, overdose with survival >24 hours at hospital). There will be collection of admission blood if available and a buccal swab for DNA. The body will be released directly to the mortuary from the hospital (See Alternate Flows in Use Case: Conduct Investigation).

- Signout Cases that then require DSU pick up.
  - Investigators may notify the WC /DSU Supervisor that a case previously identified as not needing a DSU pick up, now needs a DSU pick up.
    - The system shall allow an authorized user to change a case from not requiring a DSU pick up to requiring a DSU pick up.
  - The WC/DSU supervisor would then follow the normal flow of assigning a FA for response.

Cycle Time & Performance Metrics:

- Time from case creation to dispatch, time of assignment acknowledgement
- Percent and name of hospitals that are not ready to release body within pick-up window
- Time of dispatch, time of FA arrival, time of Investigator arrival
- Track time in route, time on scene, time to clear
- Address, distance, and time to/from destination – to be used in the future to improve scheduling

Required Capabilities in Future State System:

- Track case and resource statuses.
- Provide capability to identify and track organ and tissue procurement cases, as well as cases where DMEC staff is unable to make a pick-up due to external delays.
  - Track One Legacy cases pending organ procurement.
  - Track cases where Law Enforcement gives a first call to DMEC, but scene has issues preventing DMEC pick-up (e.g. radiation).

  Note: Provide this capability to RD Clerks, Investigators, and Forensic Attendants, as delays may be realized at various points between call and pick-up.
- Provide capability to report on exceptional case data separately from NAME-qualifying case response performance.
- For mobile work, have an offline capability to record information to device and allow syncing with the case file once internet connection is restored.
- Display associated case lifespans and flag cases that are nearing NAME targets (or expired).
- System shall allow staff to manually record time of arrivals at scene.
- Provide system dashboard(s). Display may include, but is not limited to the following:

- Names of individuals in the office and individuals who are not yet assigned
- Staff reporting to work during next shift (based on existing shift calendar)
- All investigators in the field and their expected time of return
- Any backlog – reported deaths without dispatch
- Time of reported case and time left to meet NAME 48-hour requirement
- Location of investigators/DSU van (e.g. vehicle locator, GPS)

3.3 Update Schedules and Notify Parties (WC)

Purpose & Objectives:

The purpose of this use case is to allow the WC (or assistant) to update schedules and change assignments throughout the day to ensure that the system accommodates events that may result in schedule/assignment changes (e.g. staff absences, hospital delays).

Actor/Role:

- Watch Commander (WC)
- Supporting Actor: DSU Supervisor

Process Owner:

- Chief of Operations

Trigger Events:

- Scheduled staff member experiences an unexpected delay or absence.
- Any scene is unprepared (field scene/hospital/mortuary) and sends FA/Investigator back to DMEC empty-handed. FA/Investigator becomes available to pick-up a different case.
- Traffic congestion, vehicle breakdowns, and other delays impact case turnaround time to such an extent that pick-up time needs to be rescheduled.
- An FA clears a scene and becomes available to pick-up another decedent.
  Note: The concept of Investigators and FAs taking on additional cases while in the field may reduce driving time and improve response time in the field, but may have negative consequences including:
  - Interim reports not available when body arrives at DMEC – autopsy/exam delay
  - Increased movement of bodies into and out of the crypt
  - Spikes in workload (i.e. multiple bodies arriving at FSC at one time) causing additional backlog for FAs and Forensic Technicians
- Decedent arrives at FSC, FA completes drop off work and is available to for new case.

Pre-Condition:

- WC and Investigators are logged into the system, tracking staff statuses in real-time.
- Weekly and monthly work schedules are defined.
- On-duty Investigators (and vehicles) are known, along with status, availability, and skill levels. See Use Case: Dispatch Investigator and Coordinate with DSU for status list.

Post-Condition:

- Case and resource statuses are up-to-date.
- Service commitments (pick-up windows) have been updated.

Use Case Flow:

1. WC identifies the need to make an update based on new information they receive.
   a. System shall display various options, including, but not limited to the following:
      i. Update Staff Availability
      ii. Update Assignments
      iii. Update Pick-Up Windows
      iv. Update Case Status (e.g. Hospital cannot release body)
      v. Other
2. **Update Staff Availability**: WC enters staff's name and updates his/her availability. Staff can also update their own availability (e.g. calls in sick, goes home for family emergency;

Note: Staff's updates may be subject to WC/Supervisor approval). Finally, WC/DSU Supervisor can add staff as needed (e.g. overtime scheduling).

a. The system shall display the current staff schedule.
    i. The unit supervisor regularly updates the schedule.
b. The system shall notify the staff and relevant parties of any changes.
c. The system shall track any additions to typical shift availability.
d. The system shall support the definition of various levels of user roles, permissions, and approval requirements for staff updates to their own schedules.

3. **Update Case Status** (e.g. new pick-up window)**:** WC searches for the case to be updated.
    a. The system shall support search by case number, decedent name, etc.
    b. Once the case is identified, the system shall display case information and status.
    c. The system shall display time of last update. The system shall display an alert when an open case record has not been updated beyond a pre-determined time (i.e. an assigned case has not changed status for an extended period).

WC/DSU Supervisor updates the case information.

    d. The system shall notify staff and relevant parties of any changes (See Use Case: Dispatch Investigator and Coordinate with DSU).
    Note: Impacted staff must confirm receipt of status change notifications.

Alternate Flows:

- Assigning Multiple Individuals to a Single Case:
    - The system shall allow assignment of multiple resources to the same case (e.g. Investigators, FAs, vans).
    - Resource statuses and availability should reflect this type of assignment. The system shall track statuses of resources in addition to staff such as DSU vans, Investigator vehicles, etc.

- Major Incident or Scene:
    - The system shall allow tracking a major incident or scene by linking several cases to one incident.
    - This designation shall be made via manual entry or system rules.

- Related Cases:
    - The system shall allow linking or connecting multiple cases together as related (e.g. multiple decedent scene, family).
    - The system shall provide visual indication whenever a user accesses a case that has related cases (e.g. automatically open all related case records when one record is accessed).

- Delays at Scene:
    - In cases where an Investigator and/or FA experiences significant delays upon arrival at the scene, WC must be notified and in contact with affected staff.
    - In some cases, an Investigator will have the option to leave the scene and return later. The system shall track this temporary change in availability.
    - If a Criminalist is required at the scene and an Investigator/FA must wait for his/her arrival, then the system shall facilitate communication between the assigned parties and provide visibility into coordinated arrival time.

Cycle Time & Performance Metrics:

- Time at Scene versus Access to Scene (Investigators)

- Time at Scene versus Access to Take Custody (FAs)

Required Capabilities in Future State System:

- Maintain and track schedules of all resources and staff.
- Allow Investigators and FAs to update their own availability and reason, as permitted by defined roles/permissions/approvals (e.g. busy finalizing report, court appearance).
- Measure total unavailable time per staff member (performance management).
- Maintain online supervisors' log sheets/dashboard.
- Provide workflow and notification capabilities.
- Provide WC with visibility to upcoming shift schedule and actual resource availability.
- The system shall provide the WC a dashboard with drill-down capabilities:
    - Display all Investigator/DSU staff currently at work
    - Display current status of Investigator/DSU staff
    - Display number of cases in route, schedules for pickup (future window)
    - Display all open cases and time since first reported
    - Display statuses of preliminary and finalized reports
    - Display daily, weekly, monthly, and annual NAME metrics (also by type of case)
- The system shall provide schedule and assignment visibility/access between WC and DSU Supervisor (or Senior FA, or Supervising FA).

3.4 Manage Counter Signouts

Purpose & Objectives:

Counter Signout cases (external examinations of decedents in mortuary possession on-site at mortuary facilities) will be initiated in advance through the RD and coordinated by the on-duty Investigation Supervisor during the designated days/times of Counter Signouts.

The objective is to support an efficient option for case processing at DMEC, facilitated by participating mortuaries, while recording detailed case data in the system.

Additionally, the process will record exceptions against NAME standards as DMEC cannot control elapsed time between call and exam for Signout cases.

Note: Counter Signouts must be individually reported and agreed upon between the Caller (mortuary staff) and WC. There should be no surprise arrivals on Counter Signout day.

With Counter Signouts schedule, staff need to only be assigned to Counter Signout duty when a case is schedule and can be available for other work for the rest of the day.

Actor/Role:

- Watch Commander (or delegate to Investigation Supervisor)
- Supporting Actors: RD Clerk, Investigator

Process Owner:

- Chief of Operations

Trigger Event:

- Mortuary reports the case to DMEC RD.

Pre-Condition:

- Participating mortuary is in possession of the decedent.
- Mortuary staff has called RD with a new case to assign as a Counter Signout.
- Counter Signout Inspector has been scheduled (in some case, DME is participating).

Post-Condition:

- Decedent has arrived and is available for exam.

Use Case Flow:

1. RD Clerk accepts a call from a mortuary staff representative reporting a death and who needs to bring a decedent to DMEC as a Counter Signout. Call shall be transferred to Investigator, who will collect call information and determine jurisdiction.
    a. See Use Case: Take Call, Triage & Initiate Case. The system shall provide additional functionality for RD Clerk/Investigator, displaying date/time of next Counter Signout window and confirming bandwidth for desired arrival date/time.
2. Investigator confirms case to be processed during next Counter Signout window, as well as specific arrival time (if possible).
    a. The system shall connect case record to Counter Signout schedule view.
    b. WC and Investigation Supervisor on-duty at time of call and date/time of Counter Signout each receive an alert to expect the decedent (case number and name).
3. WC and/or Investigation Supervisor on-duty during day of Counter Signout oversee staff and resource availability and cross-reference with the list of expected decedents.
    a. The system shall display staff availability and a list of incoming decedents with mortuary contact information. Note: If case volume exceeds capacity for the

dedicated Counter Signout team, then the system shall generate an alert. This alert is triggered as soon as the conflict is anticipated—even if that happens prior to date of Counter Signout.

4. Doctor determines the cause and manner of death based on available history.
    a. The system shall provide associated case history and support DME entry of cause and manner of death information.
5. Investigators complete Counter Signouts (external examinations) at DMEC as bodies arrive (See Use Case: Conduct Autopsy/Exam & Make Ready for Release).
    a. The system shall record external exam information and update case status.
    b. External exam info automatically populates into Investigative Summary Report document, to be approved by Investigation Supervisor.

Alternate Flows:

- Mortuary Caller Cannot Accommodate Next Counter Signout Date:
    - If the participating mortuary staff representative cannot agree to DMEC's next available Counter Signout date, then the call is escalated to WC. At this point, WC can determine whether to schedule for the following day or to request that caller calls back later when they are able to commit to a specific (near-term) date/time for external exam processing at DMEC.

Cycle Time & Performance Metrics:

- Exception to NAME Standards – track call time from initial reporting to actual examination
- Report on individual mortuary performance, volume

Required Capabilities in Future State System:

- Clearly distinguish Counter Signout cases (as opposed to general "Signout" distinction).
- Display Counter Signout schedule and anticipated case arrivals.
- Capture additional timestamps throughout life of Counter Signout cases.

4.0 Investigation & Transportation

This section provides a set of use cases describing DMEC's future state processes and system requirements in support of investigative and DSU transportation staff. The scope includes pickup, arrival (including all steps prior to hand-off to Forensic Attendants (FAs)), preliminary report development and presentation to DMEs, and final report completion. The actors and system will work together to provide efficient, robust response efforts to deliver decedent cases to the forensic medical team.

Alongside Investigator dispatch, DSU dispatches FAs to pick-up decedents and transport them back to the Forensic Science Center (FSC). See Use Case: Dispatch Investigator and Coordinate with DSU. Investigators are responsible for collecting property and/or physical evidence from the scene and transporting these items back to FSC as well as maintaining chain of custody. Note: FAs may also collect digital evidence from the scene (e.g. scene photos) via mobile-enabled equipment.

In some cases, a Criminalist is called to the scene to collect physical evidence. This evidence is also collected and transported back to FSC.

This section includes the following use cases:

Table 3. Investigation & Transportation Use Cases

Use Case # - Use Case Name	Description
4.0 Investigation & Transportation	
4.1 – Conduct Investigation	Investigator completes a death investigation.
4.2 – Pick-Up Decedent	Forensic Attendant picks up decedents and returns them to DMEC for intake.
4.3 – Pick-Up Property & Evidence	Investigator (and others) collect and manage property and/or digital/physical evidence.
4.4 – Approve Preliminary Report	Investigation Supervisor reviews and approves Preliminary Report.
4.5 – Approve Investigation Report	Investigation Supervisor reviews and approves complete Investigative Summary Reports.

4.1 Conduct Investigation

Purpose & Objectives:

Depending on the nature of the case, an assigned Investigator is responsible for dispatching to the scene of the decedent, collecting necessary case information and evidence, compiling case notes, generating a Preliminary Report (to enable autopsy/exam to start), and producing a final Investigative Summary Report.

Actor/Role:

- Investigator
- Supporting Actors: DSU Supervisor, Forensic Attendant (FA), Watch Commander (WC)

Process Owner:

- Chief of Operations

Trigger Events:

- Case is assigned to an Investigator. See Use Case: Dispatch Investigator and Coordinate with DSU.

Pre-Condition:

- RD staff/Investigator has confirmed DMEC jurisdiction of a new case. Case is ready for FA/Investigator response.
- Investigator and reporting organization have agreed on a pick-up window within the next 4 hours.
- Investigator has enough time left on his/her shift to respond to case and complete a Preliminary Report. Note: This will support an effort to reduce instances of case assignments carrying over from shift-to-shift.
- Investigator carries a mobile field technology device (e.g. tablet) with barcode scanner.

Post-Condition:

- Investigator has completed his/her investigation.
- Preliminary report has been documented.
- Final report has been documented and approved by Investigation Supervisor (WC).

Use Case Flow:

1. Investigator is assigned to a case.
    a. The system shall alert the Investigator.
2. Investigator confirms assignment by selecting the digital case record from the queue.
    a. The system shall update case and investigator status to “Active”.
    b. The system shall prompt Investigator to print (upload) necessary case files and forms (e.g. “call sheet” call summary, property receipt, evidence log).
    Note: These documents and/or associated information may be electronically-enabled on mobile technology.
3. Investigator prepares evidence collection envelopes and labels (currently packaged at the scene, labeled afterwards), property bags (currently packaged at the scene, labeled afterwards), and additional materials needed for case response.
    a. The system shall automatically associate the case (and decedent) with the barcode and case numbers on physical materials.
4. Investigator coordinates directly with FA. Investigator departs to scene of decedent.
    a. The system shall update Investigator’s status as responding to the scene.

   b. The system shall track his/her geolocation (e.g. vehicle GPS, mobile field technology GPS, manual updates from field location).
5. Investigator arrives at the location of the decedent and opens the case on the tablet to record information. Note: Some Investigators may prefer to record information on paper and entering it into the system later.
6. Investigator records arrival time and begin data collection.
   a. The system shall update Investigator and case status and record a timestamp.
   b. On mobile device, the system shall display current case info and action menu.
      i. Collect Physical Evidence. See Use Case: Inventory & Manage Physical Evidence for Investigator/system sequences related to collection of physical evidence from the scene. This includes the collection of admit blood from hospitals, medical records, and personal property.
      ii. Take Pictures. See Use Case: Manage Digital Evidence (Photos, X-rays, CTs) for Investigator/system sequences related to photography at the scene.
      iii. Collect Personal Property. See Use Case: Inventory & Manage Property for Investigator/system sequences related to collection of decedent property from the scene.
7. Investigator conducts interviews.
   a. The system shall prompt Investigator to record interviewee role (e.g. Next of Kin (NOK), Law Enforcement Agent (LEA), mortician, physician, nurse), name, and contact information.
   b. The system shall prompt Investigator with typical questions, providing mobile capability to enter text and/or audio files and to update the case file remotely. Note: A standardized list of questions might become more cumbersome than open text entry, depending on case type and Investigator's level of experience.
   c. The system shall pull relevant content into the "Narrative" portion of the preliminary and final report.
8. Investigator conducts body examination.
   a. Mobile field technology shall support electronic forms and template drawings.
9. Investigator concludes on-site responsibilities and marks his/her status as "Clear". If applicable, the Investigator picks up medical charts (See Use Case: Pick-Up Property & Evidence; Note: Technically, medical chart is neither property nor evidence).
   a. The system shall provide a checklist for step-by-step case completion. Note: The risk of over-standardization may apply.
   b. The system shall auto-populate already collected case information recorded at the scene into a Preliminary Report and a final Investigative Summary Report.
   c. The system shall update Investigator's status.
10. Investigator confirms identification of decedent and Next of Kin (NOK). Investigator successfully notifies NOK of death.
   a. System shall record and confirm identity of decedent, record identity and contact information of NOK, and track NOK notification of death. If Victim cannot be immediate identified, see Use Case Section: Disposition, Release Planning & Release.
   b. The Investigator may determine NOK for the decedent will be different than NOK for the property and identify NOK for the property.
      i. The system shall track Next of Kin (NOK) for property separately from NOK for the decedent.
11. Investigator returns to DMEC and provides Preliminary Report to DME. The contents of a Preliminary Report may include, but are not limited to the following (Investigators' perspective):

        - Case Number, Name, Age, Date of Death, Injury
        - Synopsis (written summary is preferable to raw notes text)
        - Medical history, Drug history, Diagnoses, Surgeries
        - EHR reference ID (if applicable and available)
        - Disclaimer (standard)
        - Forensic matters and content specific mean for the DME to make decisions about the exam type or areas to focus in the exam
    a. The system shall allow the DME to view a section of the Investigator's Preliminary Report or generate a specific report view of the Investigator's Preliminary Report that is tailored to informing the DME on matters necessary for making decisions about the type of exam or areas to focus on the exam which may not include other types of information necessary for the case.
    b. The system shall alert the forensic medical staff (Forensic Technician and/or Deputy Medical Examiner (DME)) of Investigator's arrival and completion/status of preliminary report.
    c. The system shall facilitate communication between Investigator and acting DME to share Preliminary Report file.
    d. The system shall record case information at time of Preliminary Report (i.e. create a "snapshot" to preserve the up-to-date report info that was used to initiate autopsy/exam).
12. Investigator completes his/her written report (final Investigative Summary Report).
    a. The system shall provide an easy-to-use interface and simplified view of required fields.
    b. When the report is submitted, the system shall alert the Investigation Supervisor, Laboratory staff, and DME.

Alternate Flows:

- Investigator Is Unable to Meet the Predetermined Pick-Up Window:
    - Investigator notifies WC.
        - WC flags case and updates system record.
        - The system shall have the capability to record reasons for unsuccessful pickup as well as hospital or LEA preventing the pickup for future reporting and process improvement reasons.
    - RD Clerk calls the reporting organization to reschedule the pick-up window.
        - The system shall record follow-up call data and associate it with the case.
        - The system shall alert WC and Investigation Supervisor until case is assigned to and confirmed by a replacement Investigator.

- Investigator Is Interrupted Mid-Transit to or from Scene of Decedent:
    - The system shall enable his/her access to view multiple active cases at a time.
    - The system shall allow Investigator to accept "other case" in qualifying scenarios.

- Mortuary Signout Cases:
    - If non-Counter Mortuary Signout cases take place in the future state (Investigator drives to mortuary to conduct external examination), then the system shall facilitate and record communications between Investigator and DME in charge of external examinations. Information from external examinations shall be supported remotely by the system.
    - If transport is required (i.e. a case changes type from Mortuary Signout to FSC case), then an Investigator may escalate the Signout case to WC for DSU coordination and FA dispatch.

        - The system shall allow changing a case from not requiring a pick up by DSU to requiring a pick up by DSU. See alternate flow in Use Case: 3.2 Dispatch Investigator and Coordinate with DSU.

- Field/Hospital Signout Cases:
    - If RD Clerk/Investigator receive a call from a hospital reporting a new decedent and they determine that the case does not require examination at DMEC, then the investigation shall consist of an Investigator dispatching to the hospital to collect admission blood (if available) and a buccal swab for DNA.
    - The body shall be released directly from the hospital to a mortuary.
    - This applies for specific categories of decedent (e.g. traffic, overdose with survival >24 hours at hospital).
        - The system shall allow release of a decedent and signout of a case in the field.

- Property Is Released by Investigator in the Field:
    - See Use Case: Release Property.

- Physical Evidence Is Released in the Field:
    - In some cases, a piece of physical evidence may be released to a Law Enforcement Agency representative in the field. In such cases, the system shall record a description of the item, as well as transactional details documenting the transfer of custody.

- Investigator Is Unable to Process Case Upon Arrival:
    - The system shall record reasons for on-site field delays and flag affected cases for NAME exception (e.g. LEAs block access).
    - The system shall facilitate communication between Investigator and Investigation Supervisor in case the delay triggers a reassignment (See Use Case: Update Schedules and Notify Parties (WC)).

- Investigator is Unable to Secure Immediate Identification and/or Notification of NOK:
    - See Use Case: Identification and Notification of DOE Cases.

- Suspected Homicide:
    - If case is a suspected homicide, then Investigator notifies appropriate Law Enforcement Agency (LEA).
    - The system shall track LEA notification and subsequent interactions with DMEC.
    - The system shall allow tracking of the LEA’s case number.

- Decedent is not a Regular Body:
    - In certain cases where Investigator/FA determine decedent is not a regular body and cannot be identified with a regular toe tag, the Investigator may be responsible for retrieving the decedent (e.g. bone). The system shall support the ability to assign an Investigator as transport in the same way it may assign an FA.
    - Ankle band may be stapled to specimen bag and scanned/linked.
    - The system shall record all information entered by Investigator onto SPECIMEN CONTROL CARD in the field.

- Suicide Cases and Suicide Notes:

- If a suicide note is recovered from the scene, then the Investigator shall photograph/scan/upload an electronic version into the screen. Any physical form retrieved from the scene shall be packaged and specifically identified before drop-off to Property unit.

Cycle Time & Performance Metrics:

- Current (RptdBy, Arrive, InvRptSupv) and additional investigation timestamps including, but not limited to:
  - Drive time
  - Scene processing time
  - Report writing time
- System should keep track of case items collected by Investigators. These items include, but are not limited to the following:
  - Decedent identification (Y/N, date)
  - NOK notification (Y/N, date) including if there is separate NOK for property
  - Body intake (Y/N, date)
  - Intake items
    - X-ray complete (image file)
    - Weight recorded
    - Height recorded
    - Fingerprints (image files)
  - Body location (field/DMEC + autopsy/exam station/crypt location)
  - Preliminary Report complete (Y/N, date)
  - Toxicology Report complete (Y/N, date)
  - Investigative Summary Report complete (Y/N, date)

Required Capabilities in Future State System:

- Record and track Investigator's location, status and updates.
- "Availability" views (Dashboard) account for time until end-of-shift.
- Auto-populate reports via checklist and allow for subsequent editing by Investigator.
- Provide mobile functionality
  - Note: CME provides remote access capability today, but DMEC is interested in a tablet-like future solution with touch screens, simplified data entry, and real-time updating capability. For example, if WC updates NOK info from the FSC, then the Investigator should see this new info on his/her mobile field equipment.
  - In areas with no cell/data reception, any updates made by DMEC staff in the field shall be retained and updated into the system upon re-establishment of a network connection.
- Support barcode scanning in the field and at major hand-off locations.
- Mobile functionality enables case record updates and case status monitoring.
- Text *and* audio file entry are supported (i.e. voice recording of interviews, transcribing).
- Consider ability to upload digital images in field directly to system either directly from camera, PDA, or combination.
- Support mobile communication between assigned Investigator and FA.
- Preliminary Report features supported (e.g. Ops Doc has access to in-progress write-up by Investigator, system saves snapshot of case write-up at time of Preliminary Report).
  - Any Preliminary Report that is used by a DME to begin an autopsy/exam must be preserved for later reference in case details change after exam occurred.
- Supports electronic signature for chain of command.
- Integrates with evidence and property logs.

- Provides visibility to downstream case processors (e.g. Forensic Technician, DME).
- Supports remote external examinations.
- On-site interview forms/questionnaires are customizable by investigator/case type. Form also supports open text entry (“Notes”).
- Investigator-facing forms are configurable (e.g. required items, radio buttons, order of fields, case type templates, user templates).
  Note: CME screens are collecting the right information, at an appropriate level of detail. However, the layout could be improved.
  - From Investigator’s Narrative Form 3 (input can be standardized vs. open text required):
    - Information Sources – Open text
    - Investigation – Case Number
    - Location - Geo
    - Informant/Witness Statements – Open text
    - Scene Description - Open text
    - Evidence – Open text
    - Body Examination – Open text
    - Identification – Name, Date/Time Identified
    - Next of Kin Notification – Name, Relation, Date/Time Notified
    - Tissue Donation – Type
    - Autopsy Notification – Date/time
- The system shall provide Investigators and DME/FT team with access to X-ray files and studio photos (which are uploaded in real-time).
- The system shall provide the capability for field Investigators to mark a case for PA review, so that the Notifications Clerks can refer eligible cases to PA for follow-up.

4.2 Pick-Up Decedent

Purpose & Objectives:

Most reported deaths under DMEC jurisdiction require the decedent to be picked up and brought in to the Forensic Science Center (FSC) for post-mortem examination and/or autopsy. The objective of this use case is to describe process and system capabilities in support of retrieving a decedent.

Actor/Role:

- Forensic Attendant (FA)
  Note: See Use Cases: Pick-Up Property & Evidence and Inventory & Manage Property for additional "pick-up" events.

Process Owner:

- Chief of Operations

Trigger Events:

- FA is assigned to a case with a known location and established service window ("pick-up window"). See "TRANSPORT DRIVER MESSAGE" form for detailed information that is required.
- FA acknowledges receipt of case assignment.

Pre-Condition:

- FA and van are available.
- Body is available for pick-up (confirmed).
- Van is properly stocked with necessary equipment and forms, including, but not limited to the following:
  - Equipment:
    - Cameras
    - Various kits
    - "Sked"
    - Ropes
  - Consumables:
    - Containers
    - Body bags
    - Toe tags and ankle bands
    - Sheets
    - Personal Protective Equipment (PPE) (e.g. gloves)
    - Body control card(s) (Note: Electronic in future state)
    - Barcode labels for different purposes
  - Forms:
    - Hospital Report Form (Form 18) – to be filled out by hospital
    - Specimen card for bone and tissue collection
    - Property receipts
  - Mobile Field Technology:
    - Tablet/Computer – In the long term, it can be assumed that the FA will have a tablet or computer and application to record all activities at the scene related to pick-up. It is also assumed that the mobile Application/System will be part of the new systems.

- The system shall support both online and offline recording with synchronization back to the main case management system(s).

Post-Condition:

- FA has recorded custody of decedent.
- FA has arrived back at FSC with the body. FA and case statuses have updated.
- If applicable, admission blood has been collected and barcoded (See Use Case: Pick-Up Property & Evidence).
  Note: The actual check-in process (weigh-in, overhead photo, fingerprinting) upon arrival to FSC is documented in Use Case: Unload and Check-In Decedent ("Receiving").

Use Case Flow:

1. FA acknowledges receipt of case assignment.
   a. The system shall record FA's acknowledgement (date/time) and notify WC and DSU Supervisor.
   b. The system shall support assignment sheet print-outs (optional for FA). See "TRANSPORT DRIVER MESSAGE" for required information.
2. FA prints out and prepares barcoded labels and toe tags.
   a. The system shall automatically associate the case (and decedent) with the barcode and case numbers on physical materials.
3. FA leaves FSC for scene and records the time of departure in the system.
   a. The system shall have the capability to record departure time and updated status. Some location-based status updates may require manual input by the FA.
4. FA arrives at the scene.
   a. The system shall record his/her arrival time and updated status.
5. FA gains access to the decedent and begins processing the case.
   Note: FA may not have access to decedent upon arrival to scene. See Alternate Flows.
6. FA records decedent information as found at scene, places a unique identifier on decedent (barcoded toe tag or RFID chip), scans the barcode, and links it to the decedent case.
   a. The system shall have the capability to record all information entered by FA at the scene regarding the decedent. See Form – BODY CONTROL CARD.
   b. The system shall have the capability to record FA and DMEC custody of decedent in the field.
      Note: For current state hospital pickups, FA must receive a completed and signed Form 18. However, when Investigators respond to hospital cases in the future state the form/info collection capability of the systems together with eSignatures may eliminate the need for Form 18.
7. FA loads decedent into van.
8. FA returns to FSC with decedent.
   Note: It is assumed that FA picks up one body per dispatch. See Alternate Flows for multiple pickups.
   a. The system shall record decedent's arrival at FSC. See Use Case: Unload and Check-In Decedent ("Receiving") for details.

Alternate Flows:

- FA Is Unable to Process Case Upon Arrival:
  - FA records his/her inability to access the decedent.
    - The system shall have the capability to record reasons for on-site field delays and flag affected cases for NAME exception (e.g. LEAs block access).

        - The system shall have the capability to record date/time of delay.
    - The system shall facilitate communication between FA and DSU Supervisor in case the delay triggers a reassignment (See Use Case: Update Schedules and Notify Parties (WC)).
    - In some cases, a difficult decedent recovery is known at time of the call. RD and WC will flag cases for Special Operations Response Team (SORT) as needed. FA may request SORT assistance from field, as well.
        - The system shall record cases that require SORT.

- Decedent is not a Regular Body:
    - In certain cases where FA determines decedent is not a regular body and cannot be identified with a regular toe tag (e.g. bone), he/she must coordinate with Investigator assigned to the case.
      Note: There are instances where an Investigator completes transport (e.g. bones and/or babies). The system shall support the ability to assign an Investigator as transport in the same way it may assign an FA.
    - See Use Case: Conduct Investigation.

- Multiple Pickups:
    - As mentioned, future state dispatch of FAs will focus on single decedent pick-up and retrieval. However, if the DSU Supervisor determines that a multiple decedent trip is required (e.g. multiple dead at scene), then the system shall support case management and generate alerts for receiving staff.

Cycle Time & Performance Metrics:

- FA Acknowledgement of Case Assignment
- FA has Left FSC for Pick-Up
- FA Arrival at Scene
- FA Access to Decedent (may default to same time as arrival at scene unless exception is recorded)
- FA arrival should be recorded in the system for internal purposes.
- FA has Left Scene with or without Decedent
- FA has Arrived at FSC
- Additional Evidence and/or Property Collected at FSC
- Hospital performance records per arrival vs. access to decedent timestamp data
- Delays due to organ or tissue procurement (number of cases, percentage of cases; delays by hospital)

Required Capabilities in Future State System:

- Mobile access
- Offline capture of data with later synchronizations
- FA statuses include, but are not limited to the following:
    - Assigned for Pick-Up; FA En Route; Processing Scene; Picked Up; En Route to FSC; Available; En Route to Additional Scene
- Decedent Status:
    - Available for Pick-Up; In Custody of DMEC – Not Ready for Release; In Custody of DMEC – Ready for Release
    - Barcode tracking of decedent at each pick-up and hand-off location

4.3 Pick-Up Property & Evidence

Purpose & Objectives:

Most cases require the decedent to be picked up and delivered to the Forensic Science Center (FSC) for post-mortem examination and/or autopsy. Decedent's personal property must be collected and managed appropriately. In some cases, evidence is collected and managed by DMEC. During decedent processing at FSC, additional property and/or evidence may be collected and managed separately from the decedent.

The goal of this use case is to support the retrieval and collection of property and evidence for processing and to maintain chain of custody.

Note: The collection, handling, and inventory processes vary significantly between property and evidence. It should not be implied that both categories of items addressed in this use case are interchangeable. See Use Case Section: Manage Property & Evidence for more information.

Actor/Role:

- Investigator
- Supporting Actors: Forensic Attendant (FA; may collect items from scene), Criminalist (may be called to scene to collect evidence), Forensic Technician, Deputy Medical Examiner (DME)

Process Owner:

- Chief of Public Services (Property) and Chief of Forensic Laboratory (Evidence)

Trigger Events:

- Investigator is dispatched to the scene.
- Evidence/property is found during investigation, body processing, and/or autopsy/exam.

Pre-Condition:

- Case exists within DME jurisdiction.
- Investigator is assigned to a case with a known location and established service window.
- Investigator has acknowledged receipt of case and has arrived at the scene.
- DMEC vehicle ("car") is available and assigned to Investigator. Assignment and resource status is maintained in the system.
- Investigator's car is properly stocked with necessary equipment and forms. Investigators maintain stock within their own "gear bags" which include, but are not limited to the following items:
    - Containers
    - Cameras (point-and-shoot, tablet, large phone, or phablet)
    - Barcode labels for different purposes
    - Various kits
    - Specimen card for bone and tissue collection
- In the long term, it is assumed that investigators will have tablets or computers and an application to record all activities at the scene related to evidence and property collection.

Post-Condition:

- Investigator/FA has recorded custody and inventory of decedent, property and/or evidence.
- Investigator/FA has uniquely identified and labeled property (e.g. barcode labeled).
- Chain of custody can be confirmed.

Use Case Flow:

1. Investigator identifies property or evidence that needs to be collected and selects the option to record the information in the system.
    a. The system shall allow staff to record property and evidence (separately) for each case.
    b. The system shall prompt Investigator with a checklist of evidence and property to collect, based on case information collected during the initial call.
2. Investigator photographs the scene and enters relevant information into the system.
    a. The system shall allow staff to upload photos and associate them with the case.
    b. The system shall allow staff to record information associated with photos, such as the type of photo (e.g. scene photo, decedent at scene, or photo of evidence at scene).
    c. The system shall capture metadata associated with photos (e.g. title, device ID, date/time).
    d. The system shall allow staff to record a brief description of each photo or set of photos that are uploaded.
3. Investigator may identify physical evidence to be collected at the scene. If so, then he/she will record and inventory that evidence. In some cases, a Criminalist may be called to the scene to collect evidence. See Alternate Flows.
    a. The system shall have the capability to record all information entered by Investigator at the scene regarding physical evidence that is physically separate from the decedent. See EVIDENCE LOG (pages 1-2) for information that is recorded at the scene.
    b. If evidence is collected, then the Investigator records an LEA tracking number (police report number, if available; name of agency and point of contact).
        i. The system shall allow staff to record an LEA tracing number to associate with the DMEC case.
4. Investigator may identify property to be collected at the scene. If so, then he/she will record and inventory the property. If applicable, a witness signs off. See Form 2 – PERSONAL EFFECTS INVENTORY. Note: The form is filled out via Witness Declaration in the field.
    a. The system shall allow staff to record information associated with property at the time of collection. See Form 2- PERSONAL EFFECTS INVENTORY for information recorded at time of collection.
    b. The system shall allow staff to capture the signature of a witness to the property collection and record dual custody.
5. Investigator returns to FSC with property and/or evidence. Investigator creates labels for the property and/or evidence and attaches them to the packages.
    a. The system shall have the capability to create unique identification numbers and labels for each package of property and evidence.
    b. The system shall allow staff to create unique identifiers for property and evidence (e.g. barcode labels or RFID tags).
    c. The system shall provide reports or other means to print a barcode label with the barcode to scan and corresponding human readable text.
6. Investigator drops property and evidence at temporary storage locations at FSC, record their drop-off and release (hand-off) of custody.
    a. The system shall allow staff to record that they’ve dropped off property and evidence at a temporary storage location (e.g. property drop, evidence drop box).
        i. The system shall allow capture of signature of the receiving party.

b. The system shall track unique storage locations of the property and associate them to the case.

Alternate Flows:

- Regional Investigator Hands Evidence to FA, Who Drives Evidence to FSC:
  - The system shall record evidence handoffs between staff, such as from a regional Investigator to an FA for transport back to FSC, and update location and status of evidence.

- Forensic Attendant May Collect Admission Blood at Hospital:
  Note: FA must validate that they are receiving the right blood before leaving hospital.
  - The system shall record Admission Blood collected by FA in the same way it records property collected by Investigator.
  - The system shall record who collected the Admission Blood on behalf of DMEC.

- Investigator May Collect Medical Chart:
  - The medical chart—neither property nor evidence—is a form of external documentation that may be collected by an Investigator.
  - When required as part of investigation/pick-up, the item shall be reflected on the system's list of necessary materials/files from the scene.

- Criminalists May Collect Evidence at Scene:
  - The system shall record evidence collected by Criminalists.
  - The system shall record who collected the evidence on behalf of DMEC.

- Suspected Homicides or Other Special Cases (See Use Case: Prep for Autopsy/Exam (including X-ray, CT & Exam Station)):
  - Forensic Technician (FT) may remove clothing from decedent at FSC.
    - The system shall record whether clothing is collected from decedent at FSC and update case evidence inventory.
  - FT processes clothing to drying rack. Once clothing is dry, FT packages clothing as evidence.
    - The system shall record when clothing has been placed in drying rack.
    - The system shall record when clothing is removed from drying rack and packaged.

- Property and Evidence Is Discovered on (or in) the Decedent While Body Is at FSC (See Use Cases: Unload and Check-In Decedent ("Receiving") and Prep for Autopsy/Exam (including X-ray, CT & Exam Station)):
  - The system shall record property collected at FSC from decedent and update case file inventory.
  - The system shall record staff who collect property (e.g. investigator, FT, DME).
  - The system shall record temporary storage location on service floor of property/evidence.
  - The system shall alert Investigator to notify family of property to pick-up if no property was previously collected for the decedent and Investigator had not previously notified family.

- Suicide Notes Collected:

    - Investigator will collect papers and record them as property. Investigator will also take a photo of the suicide note and upload the photo to the case as digital evidence.
        - The system shall identify whether a photo is a suicide note.

- Wills/Durable Power of Attorney (DPOAs)/Advanced Healthcare Directives Collected:
    - Investigator will collect papers and record them as property. Investigator may identify the papers as a Will, DPOA, or advanced healthcare directive. Investigator may scan or take a picture of the documents.
        - The system shall allow staff to identify whether documents collected are a Will, DPOA, or advanced healthcare directive.
        - The system shall display whether a case has a Will, DPOA, or advanced healthcare directive for staff to review during the investigation and disposition of property and decedent.
        - The system shall allow staff to identify whether a photo is of decedent papers.
        - The system shall allow staff to scan documents associated with the decedent and upload them to the case file.

Cycle Time & Performance Metrics:

- Elapsed lifespan of evidence and property
- Time until item reaches age of disposal
- Time from notification of property NOK to release
- Reports available that list items currently available for disposal

Required Capabilities in Future State System:

- Identify NOK for property separately from NOK for decedent
- Property Statuses may include, but are not limited to the following:
    - Available for Pick-Up; In Custody of DMEC – Not Ready for Release; In Custody of DMEC – Ready for Release
- Physical Evidence Statuses may include, but are not limited to the following:
    - Available for Pick-Up; In Custody of DMEC – Not Ready for Release; In Custody of DMEC – Ready for Release; Released to LEA
- Mobile field equipment (e.g. tablets) support both online and offline recording with synchronization back to the main case management systems upon network availability (e.g. upload photos from the field).
- Investigators have a barcode scanner or RFID reader linked to the mobile field equipment.
- Mobile field equipment system supports electronic signatures and each form requiring a signature is integrated (e.g. witness signatures).
- System records location of property and evidence collection (e.g. field, exam table).
- Ability to record dual custody
- Records and supports LEA tracking numbers.
- System shall have the ability to take pictures, scan documents, and upload and link to case.

4.4 Approve Preliminary Report

Purpose & Objectives:

With the introduction of a Preliminary Report—generated from Investigators' initial case findings and shared with medical staff to expedite decedent's autopsy/exam start time—the department may decide to insert an approval step in the process. The purpose of this use case is to describe how an Investigation Supervisor may consistently review and approve Preliminary Reports as they are created while minimizing unnecessary delays to autopsy/exam start time.

Actor/Role:

- Investigation Supervisor
  Supporting Actors: Investigator, Deputy Medical Examiner (DME)

Process Owner:

- Chief of Operations

Trigger Events:

- Investigator submits Preliminary Report.

Pre-Condition:

- Investigator has collected sufficient information from his/her case investigation to populate all required fields of the Preliminary Report, including information the DME needs to make decisions about the type of exam.
- Investigation Supervisor is logged into the system and available for real-time Preliminary Report review/approval.
- Decedent is in-transit to DMEC FSC or will be soon.
- Investigation Supervisor has received message (inbox, queue) indicating that a new preliminary report is available for review.
- The time of when report is available for review is recorded by the system.

Post-Condition:

- Preliminary Report is reviewed and approved by Investigation Supervisor.
- Time when report has been reviewed/approved has been recorded in the system.
- Preliminary Report is captured as a "snapshot" and shared with DME assigned to decedent's autopsy/exam.

Use Case Flow:

1. Investigation Supervisor reviews Dashboard of on-duty Investigator staff and status of ongoing investigations.
    a. The system shall generate an alert for the Investigation Supervisor whenever an Investigator submits a Preliminary Report.
    b. System will record the time of Preliminary Report submission.
2. Investigation Supervisor responds to alert by opening the decedent case file and the Preliminary Report.
    a. The system shall provide a user-friendly view of basic case information and an intuitive path to view Preliminary Report.
    b. The system shall indicate whether contents of the Preliminary Report have been edited by the Investigator. Ideally, the contents of this report will populate automatically from the information collected as part of the Investigator's routine investigation (See Use Case: Conduct Investigation). However, the system shall also provide the ability for an Investigator to edit, clean-up, or augment these pre-

populated notes and data fields. Note: Any Preliminary Report updates should also update the forms from which the data is pulled to avoid discrepancies.

c. Supervisor may decide to reject the Preliminary Report. See Alternate Flows.
    i. The system shall have the capability to notify the Investigator responsible for the report if the initial report draft is rejected.
    ii. The system shall have the capability to escalate this notification when applicable.
    iii. The system shall have the capability to allow the exam /autopsy to be scheduled without an approved Preliminary Report.
    iv. The system shall take a “snapshot” version of the report to be saved of the version that is used to make the exam /autopsy decision.
    v. The system shall have the capability to allow edits to the Preliminary Report and track any changes that are made, after the exam decision is made and before the Preliminary Report is approved.

3. Investigation Supervisor reviews the contents of the Preliminary Report, confirms that all required fields are completed, and determines that it is ready to share with DME.
    a. The system shall clearly display required data fields.
    b. The system shall support comments by the reviewing party.
4. Investigation Supervisor approves the Preliminary Report.
    a. The system shall capture timestamp and any comments, incorporating them into the “snapshot” version of the document that will be visible to the DME.
    b. The system shall generate notifications for the assigned DME—ideally prior to decedent’s arrival in the autopsy/exam room.
    c. The system shall trigger status updates and alert the Supervising DME of the status change to ensure optimal scheduling.

Alternate Flows:

- Preliminary Report Is Incomplete or Requires Updates:
    - In cases where the Investigation Supervisor does not approve the Preliminary Report, the system shall support comments on the document itself, so when it is returned to the Investigator, he/she can quickly see the reasoning behind the rejection and respond accordingly.
    - The system shall facilitate communication between Investigation Supervisor and Investigator to expedite the process of addressing necessary improvements.
    - The system shall alert WC and Supervising DME to ensure that resource status is updated and projected for expected re-work.
    - The system shall escalate Preliminary Report rejections to WC when an Investigator is off-duty at the time that his/her report is rejected. The ability for Investigative staff to update/edit reports that they did not create is a subject for policy discussion.

Cycle Time & Performance Metrics:

- Time from Preliminary Report submitted to Preliminary Report reviewed and approved
- Duration of review
- Approval rate (overall, by Investigator)
- Category of reasons for non-approval

Required Capabilities in Future State System:

- Version control and secure access prevents multiple parties from viewing and updating the Preliminary Report at once.

- Comment functionality allows Investigation Supervisor to annotate approved and non-approved reports.
- Snapshot version capture at time of review and approval—maintain a record of the document that DME will use to begin his/her autopsy/exam

4.5 Approve Investigation Report

Purpose & Objectives:

A case cannot be officially “Closed” until the Investigation Supervisor has reviewed and approved the complete Investigative Summary Report. This use case documents the approval process.

Actor/Role:

- Investigation Supervisor (aka Watch Commander)

Process Owner:

- Chief of Operations

Trigger Events:

- Investigator submits his/her complete Investigative Summary Report.

Pre-Condition:

- Investigative Summary Report has been completed to the best of Investigator’s ability.
- Investigation Supervisor is logged into the system, tracking case statuses, and available to review reports.

Post-Condition:

- Investigative Summary Report is approved and forensic medical staff is notified (likely post-autopsy/exam).

Use Case Flow:

1. Investigation Supervisor is logged into the system.
    a. The system shall alert him/her to all Investigative Summary Reports that have been submitted as “Complete” by the Investigator.
2. Investigation Supervisor opens a case report for review.
    a. The system shall log the action and update case report status to “Under Review”.
    b. The system shall display a user-friendly view of the report, support comments, and highlight any missing data or unusual information.
3. Investigation Supervisor approves the report and verifies its completion (“signs off on it”).
    a. The system shall mark case “Complete”, record supervisor approval, and alert Investigator and DME/FT to the final version of the report.

Alternate Flows:

- Investigation Supervisor Finds an Issue/Omission/Error in the Review and Does Not Wish to Approve It:
    - The system shall alert the Investigator to the rejection and reasoning behind it.
    - The system shall facilitate communication between Investigation Supervisor and Investigator to speed up addressing necessary improvements.

Cycle Time & Performance Metrics:

- Currently no metric to capture report submission by Investigator, but “InvRptSupv” is recorded at time of supervisor approval.
- Approval rate
- Similarity to Preliminary Report (quantify material changes that may have impacted autopsy/exam)

- Backlog of incomplete Investigative Reports per Investigator (anticipate tendency of Investigators to complete Preliminary Reports without completing Final Reports)

Required Capabilities in Future State System:

- Notification of LEA if Death becomes a Homicide
- Electronic report interfaces with report statuses and automates alerts between Investigator(s) and Investigation Supervisor.
- Supports comments and annotation capabilities.
- Supports Investigation Supervisor's capability to make corrections independent of Investigator who created the report. For example, if an Investigator leaves on their weekend, but made significant errors in the report (e.g. name, DOD), then the Supervisor shall be able to fix the errors to prevent additional errors down the line.
- Final version of approved report should be "locked," that is it cannot be changed (e.g. auto-generate a PDF final version for electronic storage upon approval).
    - The system shall have the capability to automatically generate reports or generate reports based on a periodic schedule. (e.g. create a PDF of all Investigative Reports approved each day)

5.0 Manage Property & Evidence

This section addresses use cases and requirements around managing property and evidence and establishing the corresponding chain of custody. These use cases cover the time after initial pickup and investigations.

This section covers the following use cases:

Table 4. Manage Property & Evidence Use Cases

Use Case # - Use Case Name	Description
5.0 Manage Property & Evidence	
5.1 – Inventory & Manage Property	Inventory decedent property and manage chain of custody while in DMEC possession.
5.2 – Release Property	Release property to eligible successor or otherwise dispose of property.
5.3 – Inventory & Manage Physical Evidence	Inventory physical evidence and manage chain of custody while in DMEC possession.
5.4 – Release Physical Evidence	Release physical evidence when Final Mode of Death is determined or evidence is requested by Law Enforcement Agency (LEA).
5.5 – Manage Digital Evidence (Photos, X-rays, CTs)	Inventory digital evidence and manage chain of custody while in DMEC possession.
5.6 – Share Digital Evidence	Digital evidence is shared with LEA or external party, subject to status of case and evidence in question.
5.7 – Dispose of Evidence	In accordance with retention policies, dispose of physical and digital evidence.

5.1 Inventory & Manage Property

Purpose & Objectives:

The goal of this use case is to inventory decedents' property and manage the chain of custody while in DMEC possession (until release or destruction).

Actor/Role:

- Property Unit Staff

Process Owner:

- Chief of Public Services

Trigger Events:

- Property becomes available at FSC drop points on service floor and investigator area for processing.

Pre-Condition:

- FA and/or Investigator has picked up property, recorded it and packaged it for further processing. Information in Form 2 – PERSONAL EFFECTS INVENTORY has been completed.
- FA and/or Investigator has dropped off property at temporary storage locations at FSC on the loading dock and investigator area.
- Property has been labeled with a barcode by Investigator or FA.
- Any property released in the field to law enforcement has been recorded. See Use Case: Release Property.

Post-Condition:

- All property has been collected and inventoried at FSC.
- Property has been uniquely and electronically identified and linked to the DMEC case and case file has been updated.
- Property staff has identified family member(s) eligible to receive property ("Property Next of Kin (NOK)).
  Note: While decedent is released to NOK per Health and Safety Code, property is released to family per Probate code. These individuals may be different people.
- Property staff have notified family or authorized person that decedent's property is available for pick-up.

Use Case Flow:

1. Property Staff reviews the contents of the loading dock property drop box, records the unique identifier for each piece of property, and signs for the receipt of the property to take custody. A second Property Staff also signs as a witness.
    a. The system shall support barcoding capabilities for unique identification and recording of property items.
2. Property Staff confirm the number of envelopes and packages compared to the information recorded by parties who dropped off the property (see log at Service Floor and Investigations drop box for information included).
    a. The system shall display a log of property contained in the drop box per case as documented by DSU and Investigations staff.
       Note: The property should already be associated with case files.
    b. The system shall have the capability to display screens to enter received property.
    c. The system shall require and support witness signatures as defined by property staff protocol.
    d. The system shall update that property is no longer at temporary storage locations in service floor drop box or Investigator's cage and has been picked up by property staff.
    e. The system shall allow multiple people to electronically sign for possession of property.
3. Property Staff transports the property to the processing location, opens each envelope, and accounts for individual items.
    a. The system shall have the capability to record envelope inventories and to confirm contents.
    b. The system shall require a second staff member to verify contents of envelope.
    c. The system shall allow multiple people to electronically sign for possession of property.

4. Property Staff collects the property and moves it to the property vault or downstairs location.
    a. The system shall record receipt of property at long-term inventory location.
    b. The system shall track inventory locations of different sizes within inventory location (e.g. shelf, bin).
    c. The system shall have the capability to track multiple inventory locations (e.g. property vault versus downstairs area for larger items).
    d. The system shall support bar code readers (and/or RFID scanners) at each storage location.
5. Property Staff consolidates any property from service floor and investigator's cage into one container of property per case, or multiple packages.
    a. The system shall have the capability to record such consolidation of different pieces of property for a case into one location or envelope.
6. Property Staff updates location of property on the grounds of DMEC (for any change of location/storage).
    a. The system shall track the location of property at different storage locations within DMEC. For example, bin number within property inventory area.
7. Property Staff researches case file to identify family eligible to receive property.
    a. The system shall provide Property Staff with up-to-date visibility into case details and status (e.g. Property NOK identified and notified; checkbox for Parent of Minor Child; if a Will exists; if a spouse exists). See ECFS field for separate data field.
8. Property Staff coordinates with appropriate family member(s) to prepare for proper pick-up/release.
    a. The system shall have the capability to record and support family phone calls to the unit.
    b. The system shall provide a Property Staff questionnaire to identify and confirm to whom the property is released (e.g. if had wife but also had Will).
    c. The system shall support recording of receipt of family's copy of Will and/or Trust (fax or email) and ability to link information to the case record.
9. Property Staff enters case notes at time of any document upload and in anticipation of a scheduled release.
    a. The system shall have the capability to record case note entries at time of document upload.

Alternate Flows:

- Property Staff Discovers Discrepancy Upon Property Pick-Up:
    - If Property Staff encounters a discrepancy between information recorded about property and actual envelopes/packages/contents left at drop-off, then he/she will notify the Investigator.
    - For major discrepancies, an Investigator's update to the property record may not be sufficient. In any case, the system shall facilitate tracking of communication between Property and Investigation Staff.

- Property Is Requested by an External Agency or Investigator:
    - The Property Staff and system shall follow necessary steps to record any transfer of custody, change in location, and verification of receiving party.
    - The system shall support location tracking beyond DMEC-specific locations.
    - See Use Case: Release Property.

- Property Is Separated from Original Envelope:
  - In some cases, a piece of property will need to be released separately from other decedent property. For example, an Investigator may need a decedent's key to access his/her residence if the decedent left a pet at home.
  - The system shall have the capability to record property locations when property is divided. Additional barcode/labeling may be used to support splits in property while maintaining system tracking.

- Suicide Notes as Property:
  - Property Staff will separate suicide notes upon receipt.
  - The system shall track these notes separately from other property.
  - The system shall have the capability to link scanned images and photos of documents and attach to the case.

- Property Contains Will or Durable Power of Attorney (DPOA):
  - Property Staff will confirm Will or DPOA identified on the case file, scan the items, and upload them to the case file (if not previously scanned and uploaded by Investigator).
  - If these items are discovered by Property Staff, then the system shall notify relevant parties when sensitive documents are uploaded and added to the case file (i.e. documents may impact ongoing investigation).
  - Note: Wills are filed in Superior Court.

- Property Is Collected by FTs or DMEs:
  - In some cases, property may be collected from the decedent during preparation and autopsy/exam processes (e.g. tongue ring). FTs shall package property in a new property envelope, label/barcode the envelope, and deliver the envelope to Property Staff using the same channels as FAs/Investigators.
  - Prior to recovery, the FT shall check with Investigator and case file to review any relevant notes about removing property (e.g. wedding ring). The system shall display and highlight property notes on DME/FT case view.
  - The system shall support the capability to record any instances of leaving property on the decedent.

- Property Nears Age of Final Disposition:
  - From time to time, Property Staff should monitor age of property.
    - If property is XX days old and has not been released, then the system shall notify Property Staff to process property for final disposition.
    - The system shall record how long property has been in custody of DMEC and provide reports identifying and prompting follow-up and/or scheduling disposal.
  - If family does not pick up property 30 days after death, then Property Staff sends 90-day notice so the family gets another month to pick up property.
  - The system shall provide standard forms and have the capability to send notices to families to pick-up property. These notices may be sent via email or USPS mail.
  - The system shall have the capability to record disposal of property in dual custody.

- Security Hold Cases:
  - Investigator flags case as a Security Hold case.

        - The System shall have the capability to mark property as a Security Hold.
    - Property Staff connects LEA to determine if property can be released

Cycle Time & Performance Metrics:

- Property volume (overall, per location, by type)
- Property transfer times (highlight and count any violations of chain of custody)

Required Capabilities in Future State System:

- The future state Case Management System shall have the capability to track property inventory by case and location and link inventory to case/decedent.
- The system shall support multiple property statuses, as determined by location, custody, and decedent case status. The list of statuses may include, but not be limited to the following:
    - DMEC Has Custody of Property for a Case
    - Property Has Been Collected – Property at FSC – In Inventory
    - Property Has Been Dispositioned – Property Has Been Destroyed By DMEC
    - Property Has Been Dispositioned – Property Has Been Released to another County agency
- The system shall have the capability to record how many pieces of property are associated with each case.
- The system shall have the capability to record and track any instances of “envelopes inside of envelopes” in cases where additional property is collected and added to a single case.
- Property shall be uniquely identifiable with electronic barcode readers, RFID chips, or similar technology. Each location where property is picked up or delivered will also have a unique identifier to allow for check-in and check-out of items.
- The system shall display and document dual custody of property collected, inventoried and disposed.
- Electronic signatures shall be authorized for documents related to property—including multiple signatures where needed.
- Identification of family eligible to receive property shall be maintained and independently defined from NOK.
- The system shall display if a Will exists.
- The system shall have the capability to record a request for Will /Trust.
- Task List (send letter, dispose property, etc.)
- Reporting on Property (e.g. inventory figures, amount released/disposed per month, cash deposits to Finance /Accounting)
- The system shall record and track the date and time of document upload.
- The system shall track document types uploaded to case file (e.g. wills, suicide notes, DPOAs, misc. papers collected at scene, scans of IDs).
- The system shall alert users to the existence of documents uploaded and attached to case (e.g. Suicide Note, Will, etc.).
- The system shall organize all scene photos in a single location. If ID photo is identified then it will be tagged as Property. If suicide note is not a piece a paper, then it will be photographed (e.g. writing on wall, screen shot of text on phone).
- If identification occurs on DOE case, then Property Staff is alerted to start the Property Notification process.
- The system shall track the age of property and notify staff when key actions need to be taken.

5.2 Release Property

Purpose & Objectives:

Next of Kin (NOK), family or other members of the public may request property of a decedent from DMEC (See Use Case: Manage External Request). DMEC will process the public request.

If DMEC has the decedent's property and determines the member of the public is eligible to receive the property, then Property Staff will process the request, find all property, and release property to requestor.

Actor/Role:

- Property Unit Staff

Process Owner:

- Chief of Public Services

Trigger Events:

- DMEC has received a request to release property.

Pre-Condition:

- NOK for Property has been notified of property for pick-up.
- DMEC has already identified who is authorized to pick-up the property.

Post-Condition

- Property has been released to the requestor (See Alternate Flows for other disposition methods when property is not released to public).

Use Case Flow:

1. Property Staff receive the request and review the case file to identify and locate property associated with the decedent.
    a. The system shall display the status of all associated property, the location of property, and a list of all individuals eligible to receive property.
2. Property staff notifies family of decedent that property is ready for pick-up ("First Notice" prior to requestor contacting DMEC). As part of Notification of Death, Investigator shall also notify Property Staff.
    a. Any notification of NOK should identify if NOK is eligible to pick-up Property. If not, then the system shall track a separate timer for Notification to NOK for Property.
3. Property Staff confirms that public requestor is a previously identified eligible family member to receive property (NOK for Property, or Successor's Agent) and decides that the requestor is eligible to receive the property.
    a. The system shall allow updates to case files' records of persons eligible to receive property separately from Next of Kin.
4. Property Staff meets with member of the public eligible to receive decedent's property, records Declaration of Release of Property and Successor Declaration from family member or agent. Staff also scans successor's ID, makes a copy, and attaches to Form 7 – Successor Declaration.
    a. The system shall record the DMEC staff member who is releasing property to family per Declaration for Release section of Form 2 – Personal Effects Inventory, including copy of government ID.

   b. The system shall update and record family member receiving property per Form 2 – Personal Effects Inventory and Form 7 – (Successor Declaration) “Declaration Pursuant to Section 27491.3 Government Code”.
   c. The system shall update the record of property custody as having been released to family.
5. Prior to release, Property Staff opens envelope and accounts for contents of envelope (with witness), and verifies against property record.
   a. The system shall display a clear list of property items associated to decedent.
   b. The system shall support an eSignature from the successor, who signs for property.

Alternate Flows:

- Family/Successor Designates another Party to Receive Decedent’s Property:
  - The system shall support updates to “Property NOK” listed and associated to the decedent case (See the second page of Form 7 – (Successor Declaration) “Declaration Pursuant to Section 27491.3 Government Code” for current equivalent).

- Requestor Identifies a Discrepancy:
  - Property Staff has ability to record a case note in circumstance of any perceived discrepancy. The staff is also able to escalate the issue to the appropriate parties associated with the case (e.g. WC).

- Property is Cash:
  - Property Staff can write checks for amounts of cash less than $500.
    - The system shall capture pertinent details from these transactions.
  - For cash totals greater than $500, the Property Staff must send a notice to DMEC Accounting.
    - A check writing and mailing process will be initiated based on requestors’ preferred address.

    Note: If a large amount of case is recovered as property, then the Investigator should have identified the dollar value and initiated a second witness (third person) to accept custody of cash/property.

    The system shall identify a new custody requirement of a second witness when the identified dollar amount of decedent cash is greater than $500.
  - Property Staff conducts daily cash handling process, reconciling all cash collected, making separate envelopes for cash, making receipts for each case of cash collected, and sending envelopes to Accounting.
  - If retrieval is to occur on the same day as cash was received, then cash will be released directly to the family (for amounts less than $500).
    - The system shall track the release of decedent cash by the County.

- Family does not Pick-Up Property:
  - If family does not take property, then Property Staff will identify property for disposal.
    - The system shall allow an authorized user to identify decedent property for disposal.

- Ineligible Individual Attempts to Pick-Up Property:
    - If a request comes in or a family member comes in, but the person is not eligible to receive property, then Property Staff will record the interaction and instruct the individual on the issue.
    - The system shall record each interaction with the public and potential decedent NOK (successful and unsuccessful attempts to release property).

- Request Received before Property Is Received:
    - If a request for property comes in and property has not been received by Property Unit, then the system shall facilitate communication and scheduling for estimated time of eligible pick-up.
    - The system shall allow searching for property collected by Property Staff (e.g. property reported, but in-field).

- Investigator Releases Property in the Field:
    - In cases where an Investigator recovers property from a scene and is required to release the property while at the scene, he/she must record each step of the process in accordance with chain of custody requirements.
    - The system shall support the input of property information, possession, property NOK identification, and release.
    - Where applicable, the system shall capture eSignatures for each change in custody.

- Alternate Agents for Property Release:
    - The system shall identify alternate agents for property release (e.g. NOK is not available to take property). See alternate DPOA for Release of Remains and/or Property—which also contains release for remains/decedent.

- Property is Associated with an Identified Decedent without Property NOK:
    - In cases where the decedent is identified, but he/she does not have any Next of Kin or family members eligible to receive property, the Property Staff shall dispose of property.
      Note: Property that is not claimed is disposed and sent for auction.
    - The system shall have the capability to record release of valuable property to other County agencies.
    - Property staff will destroy property that is of no value such as credit cards.
    - System shall record destruction of non- valuable property by DMEC.

- At the time of inventory Property Staff will return government identification cards to issuing agencies. The system shall record return of identification card property to issuing agencies.

- If property is associated with a DOE, and DOE is dispositioned (body released) prior to Doe being identified, then the property is provided to Public Administrator for auction.

    - The system shall allow staff to indicate property associated with a DOE has been released.

Cycle Time & Performance Metrics:

- N/A

Required Capabilities in Future State System:

- Capability to maintain warehouse inventory and location of property within storage
- Support multiple storage locations
- Link property to decedent case
- Allow staff to locate property by decedent case number
- Support “condition” field for property items. For example, cash may be designated as “dirty/decomposed”. Additionally, if contaminated, then property may be identified as a biohazard. Such designations may be made by Investigator prior to drop-off or Property Staff upon receipt.
- The system shall generate alerts and flag Property Staff displays if the requestor if different from previously identified eligible persons for Property release.
- The system shall record all scans of requestors’ IDs.
- The system shall display whether any property has been collected that is contaminated and/or not available for release.
- The system shall establish a 30-day trigger for follow-up after time of Notification to NOK for Property.

5.3 Inventory & Manage Physical Evidence

Purpose & Objectives:

There are several potential situations depending on where evidence is discovered and collected:

- Forensic Attendant (FA), Investigator, or Criminalist may have collected physical evidence at the scene.
- FA has collected physical evidence during intake of decedent at FSC.
- Criminalist may have collected evidence at FSC
- Investigator may have collected evidence at FSC
- Forensic Technician (FT) will collect clothing evidence and may have discovered physical evidence during preparation of decedent for autopsy/exam and collects all this evidence.
- DME collects evidence at autopsy.

This use case addresses how DMEC envisions the management of inventory of physical evidence to ensure proper security, confidentiality, and chain of custody.

Actor/Role:

- Evidence Unit Staff

Process Owner:

- Chief of Forensic Laboratory

Trigger Events:

- User logs into the system through a barcode or RFID scan of their ID badger or other means to identify the personnel to the system
- Each item of Evidence is scanned to show submission of evidence via “the chute”.
- Each item of Evidence is scanned to show submission of evidence via the chute.
    - When evidence staff reviews the evidence submitted via the chute, it is accepted as received or rejected for corrections.

  Each item of evidence is submitted directly to evidence unit and scanned at that time.

Pre-Condition:

- Evidence has been collected and barcoded. Note: The system shall provide a unique barcode for all pieces of evidence that when scanned provides identifying information including type of evidence, the collector’s name and the date and time of collection.
- Any evidence released in field has been electronically signed for by the person receiving the evidence with a date and a data/time and who released /name of person releasing it.
- System has recorded location of evidence (chute, brought to Evidence Unit, or in crypt evidence cage).

Post-Condition:

- All evidence has been collected and assigned security permissions and retention policy.
- All evidence records have an associated LEA tracking number for the case.
  System has updated location of evidence and type of evidence (e.g. LEA shelf, retention shelf, Medical Evidence, GSR kit, Silicone Impression, Shaved Hair, Pacemaker, Freezers, and Evidence Hold

Use Case Flow:

1. Evidence Staff receives the evidence, verifies the description against chute submission, links the evidence (e.g. envelope or package) to a unique identifier (barcode), and logs in to system to take custody (i.e. receive the items).
    a. The system shall provide a simple interface to cross-check evidence received with evidence previously logged and associated to the case.
    b. The system shall provide the capability to record receipt of evidence and update the chain of custody.
    c. The system shall provide the capability to record when Evidence Staff has confirmed their receipt of evidence packages that Investigators other personnel have recorded as having dropped off.
    d. Note: GSR kits are held per retention schedule.
    e. Medical evidence is held.
    f. Silicone Impressions are held.
    g. Shaved Hair (PE) is held.
    h. other personnel, Silicone Impressions are held
    i. Shaved Hair (PE) is held
2. Evidence Staff consolidates evidence into one container.
3. Evidence Staff puts evidence in temporary storage until all evidence is received for a case.
    a. The system shall record evidence's location in storage (Retention only)
4. (LEA or Retention only) Once Final Mode is identified, Evidence Staff marks evidence as available for release.
    a. A report of this evidence available for release can be generated to send to LEA to let them know case evidence is ready for pick-up or they may authorize via signature to dispose of the evidence.
    A report of this evidence available for release can be generated to send to LEA to let them know case evidence is ready for pick-up or they may authorize via signature to dispose of the evidence.

Alternate Flows:

- Discrepancies at Time of Inventory:
    - The system shall facilitate communication between Evidence Staff and any party who delivered evidence to the unit.
        - If evidence is rejected the system should notify the collector that evidence has been rejected and to retrieve it from their evidence locker (note: each division has its own evidence locker (e.g. Medical, Autopsy, DSU, Investigations).
    - The system shall generate an alert to ongoing investigations to update the system with vital information such as LEA and case number.
        - If evidence is rejected the system should notify the collector that evidence has been rejected and to retrieve it from their evidence locker (each division has their own evidence locker (Medical, Autopsy, DSU, Investigations).
- If a request comes in for evidence to be analyzed by Forensic Labs, then the system shall record each check-out evidence and check-in evidence (e.g. GSRs, Medical, to be analyzed by Forensic Labs-out evidence-in evidence).
- Final Mode, but No Identified LEA:
    - If a final mode is reached that determines that the evidence belongs to a LEA, however a but the LEA has not been able to be identified for the case. Then the

Evidence Control Officer will make the final decision about the evidence's disposition.

- Deferred Case:
  - Evidence associated with deferred cases will be placed in the Deferred Status location and the system will periodically ping medical division to update this status. Once Deferred status has changed to a final mode the Evidence Unit will be notified by the system to update location of evidence.

- Evidence is Put on Hold:
  - If evidence is put on hold, then the location will be updated accordingly and the system shall track the hold duration (e.g. Court Hold).
    - Note: Evidence is held for up to 5 years.

- Evidence Staff Retrieves Evidence from Inventory:
  - The system shall track location of evidence if in inventory or not.
  - The system shall track if inventory location contains evidence or not.

- Specimens as Evidence:
  - By some definitions, specimens are considered evidence. When specimens are received, they must be barcoded, labeled, and logged into the system accordingly.

Cycle Time & Performance Metrics:

- Number of days in storage
- Number of days until associated release date or hold period

Required Capabilities in Future State System:

- Track physical location of evidence, person who picked up and moved evidence.
- The system shall trigger a report indication when an action needs to be taken regarding the evidence (e.g. due for disposal).
- The system shall trigger rejection and notify collector.
- The system shall trigger final mode update.
- The system shall record a start time to calculate evidence lifespan.
- The system shall track all evidence in inventory per case, final mode and LEA.
- The system shall have the capability to record a unique identifier associated with evidence and who the collector was and when evidence was collected.
- The system shall provide the capability to produce case reports detailing the complete chain of custody.
- The system shall trigger rejection and notify collector.
  The system shall trigger final mode update, final mode and who the collector was and when evidence was collected.

5.4 Release Physical Evidence

Purpose & Objectives:

Evidence is not released until a Final Mode of Death is determined, unless requested by LEA. Case evidence will be collected based on the incoming Mode of Death. Cases will be in "Deferred" status and held for varying amounts of time until the Final Mode is determined.

DMEC staff must have LEA that is handling the case and LEA case number to release evidence to them as they will not take evidence without their associated case number. and

have LEA that is handling the case and LEA case number them as they will not take evidence without their associated case number.

Actor/Role:

- Evidence Unit Staff

Process Owner:

- Chief of Forensic Laboratory

Trigger Events:

- LEA requests evidence. See Use Case: Manage External Request.
- LEA has numerous cases that are needing to be picked require pick-up.

Pre-Condition:

- Final Mode has been determined by DME or LEA has requested evidence.
- Evidence is in known location and associated with Coroner Case number.
- Law enforcement has been notified of evidence.

Post-Condition:

- All evidence associated with a case that is for the LEA has been released and the inventory has been updated.

Use Case Flow:

1. Upon request, Evidence Staff verifies that the evidence is ready to be released (e.g. Final Mode status or, all evidence has been received in the Unit for release) and creates a list for each LEA of evidence ready for pick-up.
    a. System shall display Final Mode status and availability for evidence to be released.
    b. System shall create a report of evidence available for release and organize reports by LEA.
2. Evidence Staff sends notice to LEA regarding evidence pick-up with an option for their authorization to let DMEC to dispose evidence – this requires a signature from LEA
    a. The system shall have the capability to send notices including list of evidence available for release or directly sending notice to LEA's case management system.
    b. The system shall have the capability to log communication to LEA.
3. Evidence Staff receives response from LEA (e.g. LAPD, LASD).
    a. The system shall record response from LEA.
        i. Record acknowledgement from LEA (e.g. ad-hoc appointment scheduling or LEA to visit at a regularly scheduled time (LAPD, LASD).
        ii. Record when LEA comes in to retrieve evidence.
        Note: Today, DMEC has a standard pick-up schedule for LAPD/LASD

and supports special pick-up times for additional agencies, such as CHP and Glendale (by appointment).

b. The system shall record if LEA responded with approval to dispose.

4. When LEA arrives for pick-up, Evidence Staff verifies identity of the requestor, determines whether LEA agent is authorized to receive evidence, and initiates release.
    a. System shall provide a report of all evidence contained in evidence bag (e.g. clothing, hair & nail kit) related to the case.
    b. System records DMEC staff member releasing evidence.
    c. System records who evidence was release to and when it was released including signature, badge number and agency.
    d. System (although this would already need to be in system typically) confirms record of associated LEA case number (associated to DMEC case number).

Alternate Flows:

- Case Does Not Have LEA Case Number:
    - The system shall display whether an LEA is associated with the case (i.e. record of jurisdiction at scene).
    - The system shall display original location/jurisdiction of homicide investigation (e.g. projectile found at autopsy, but gunshot was in another jurisdiction where LEA investigation began).
    - System will regularly notify original Coroner Investigator to provide this jurisdiction and after a specified time has elapsed, this evidence may be authorized for disposal by the Evidence Control Officer (e.g. research has been exhausted).
    - System will regularly notify original Coroner Inv. to provide this jurisdiction and after a specified time has elapsed, this evidence may be authorized to dispose by the Evidence Control Officer if research has been exhausted.

- Evidence Released at the Scene:
    - If evidence is released at the scene, then the Investigator will capture an eSignature from the LEA representative in the field. The system shall capture the evidence record and the transfer (and signatures) to LEA custody.

- Family Requests Evidence:
- Once evidence retention time is up, then evidence is available to release upon request by family. The evidence can be submitted to the Property section via the original investigator for release to NOK.
    - The system shall track the expiration of evidence retention time.
    - The system shall allow an authorized user to transfer custody of evidence in the system to the Property section.
    - The system shall allow an authorized user to mark evidence as available for release to decedent or property NOK.

- Criminalist Called to Collect Evidence:
    - A Criminalist may be called by Investigator or Law Enforcement Agent to collect and package evidence. This process closely mirrors the Investigator’s workflow. Once called, the Criminalist must write a report that may have additional forms (e.g. sexual assault evidence documentation). The system shall support this type of report generation while also enabling the Criminalist to store a copy of his/her

notes either within the system or in a unit-specific shared drive location.

Required Capabilities in Future State System:

- System shall track status of LEA notification for evidence pick-up.
- System shall track contact information for LEAs to receive evidence.
- System shall track communication with LEA.
- System shall track time elapsed and whether follow-up notice will be needed to pick-up evidence.
- System shall support evidence report print-out to provide with physical release at time of release.
- System shall interface with Los Angeles County case management systems (future version).

5.5 Manage Digital Evidence (Photos, X-rays, CTs)

Purpose & Objectives:

Digital evidence managed by DMEC can include photos, X-rays, and CT scan image files. Digital evidence will be created and uploaded from various points in the process (e.g. scene photos, overhead photos, X-rays and CT scans, fingerprints and Live Scans, exam photos).

This digital evidence is also separate from the electronic case file or any electronic results generated in processing the case (e.g. decedent height and weight, laboratory test results, tool mark analysis results or gunshot residue results; it is assumed that any detail needing to be shared externally regarding these test results will be updated in the case file).

The goal of this use case is to ensure:

- Digital inventory is managed to requirements for security, confidentiality and chain of custody.
- Digital evidence is accessible from the case file or can be received by authorized staff.
- Digital evidence can be readily shared with appropriate law enforcement agencies.
- Proper retention, backup /recovery and destruction policies are enforced.

Actor/Role:

- Staff
  Note: Evidence Unit does not handle digital evidence. Digital evidence is current created and managed by the two bureaus collecting physical evidence; Operations and Forensic Medicine. For this reason, the actor of this use case is currently generalized to “Staff”.

Process Owner:

- Chief Deputy Director (Chiefs of Operations, Forensic Laboratories & Forensic Medicine)

Trigger Events:

- Two individuals in charge have been notified that new digital evidence has been uploaded to pre-specified locations.

Pre-Condition:

- Investigator may have created digital evidence at scene (See Use Case: Conduct Investigation).
- Forensic Attendant (FA) has created digital evidence during intake of decedent at FSC (See Use Case: Unload and Check-In Decedent (“Receiving”)).
- Forensic Technician (FT) may have created digital evidence during preparation of decedent for autopsy/exam and/or during exam (See Use Case: Prep for Autopsy/Exam (including X-ray, CT & Exam Station). Note: Digital evidence (photographs) may have been created by the DME at autopsy, dentist, anthropologist, or another consultant.
- Digital evidence has been uploaded to a storage location.
- Digital evidence is stored and organized by case.
- Workflow has been initiated by collecting party (e.g. Investigator).

Post-Condition:

- All evidence has been collected and assigned security permissions and retention policy.
- All evidence records have an associated LEA tracking number for the case.
- Case file is updated to reflect location of evidence.

Use Case Flow:

1. Staff reviews new digital evidence files as they upload and “clean them up”. “Clean-up” includes matching ankle band to case, dark/light adjustment on photos and confirming files have been appropriately tagged or categorized (e.g. scene photo v. overhead intake photo).
    a. The system shall capture an audit log of each digital evidence file (i.e. photos), version, and associated user. Original documents shall be preserved. Staff notes shall be supported.
    b. The system shall allow tagging of keywords and other metadata to files including photos for later searching and incorporation into investigative and medical findings.
2. Supervising technician reviews all evidence that has been uploaded and verifies it is identified and associated to a case.
    a. The system shall display all digital evidence associated with a case (e.g. scene photos, initial overhead photo, exam photos, X-rays, CT scans).
    b. The system shall provide the supervising technician with a simplified, user-friendly navigation from case to case for efficient review.
3. Staff verifies that all digital evidence required for the case has been collected.
    a. The system shall verify if expected evidence has been recorded per case based on scene location (i.e. if field) and autopsy complexity (A/B/C/D).
    b. The system shall notify staff of any missing items.
    c. The system shall facilitate communication with associated case staff if follow-up is needed.
4. Staff verifies that all photos have been taken prior to release of body (including a release photo).
    a. The system shall clearly display case status as it relates to required and missing digital evidence items.

Alternate Flows:

- Staff Identifies Need to Re-Take Photo:
    - Upon initial upload and “clean-up”, staff might identify instances where a photo needs to be retaken.

- If a case has been marked as a suspected homicide or other special case, and Evidence Staff identify that scene photos have been collected, Evidence Staff escalate issue with Investigator if scene photos are not available.
    - System shall provide completeness checks for the collection of digital evidence per case type.

- In-House Photography by Outside Agencies:
    - DMEC staff should have visibility and complete knowledge of all digital files generated in-house.

Cycle Time & Performance Metrics:

- Number of photos, X-rays, CT scans
- Re-take count by file type

Required Capabilities in Future State System:

- Manage inventory of digital evidence and ensure proper security, confidentiality, and chain of custody.

- Ensure that digital evidence is accessible from the case file or can be received via case number.
- Ensure that proper retention is enforced.
- Ensure proper backup and recovery.
- Record relevant transactions for financial reporting (e.g. charge LASD for copy of CT scans).
- Case management system should interface with vendor neutral archiving (VNA) system called Lexmark. X-ray and CT scan images are stored locally here.
  Note: VNA future state specifications will result from conversations with vendor.
- Support the ability to search and view case information, photos, X-rays, and keywords. This feature and practice shall provide a scientific basis for medical findings.
- Metadata (e.g. type of photo)
- Enforce security around confidential documents (DMEC photos, X-rays, and CT scans are not public).
- Capture an audit trail on searching, viewing, exporting, and sharing files; ensure originality and evidence of any tampering.
- Support the ability to set detailed-level permissions (e.g. individuals assigned to case) and to categorize cases by level of sensitivity.
- Provide functionality to grant user access.
- The system shall receive photos from cameras wirelessly (encrypted transmission; including field “point-and-shoots” and overhead camera at receiving).
- The system shall support the integration of all digital evidence storage locations, as dictated by staff workflows (including field technology).
  Note: Photos may be stored locally on phones, cameras, and investigator computers. Investigators also store photos on a shared drive per case number.
- The system shall support annotations, measurements, and additional applications to benefit staff (e.g. court preparation, education).
- The system shall support the creation of teaching and training modules.

5.6 Share Digital Evidence

Purpose & Objectives:

Evidence is not released until a Final Mode of Death is determined, including digital evidence (e.g. copies of photos, or x-rays). Most cases will be in “Deferred” status when evidence is collected and inventoried. Evidence is held for varying amounts of time until the Final Mode is determined.

DMEC staff must confirm and validate proper authorization before sharing digital evidence with an authorized LEA or authorized Next of Kin (NOK)/person.

This use case captures the process leading up to and throughout the sharing of digital evidence. Across each step, the system shall ensure a consistent record of sharing the evidence with external parties.

Actor/Role:

- Staff
  Note: Evidence Unit does not handle digital evidence. Digital evidence is current created and managed by the two bureaus collecting physical evidence; Operations and Forensic Medicine. For this reason, the actor of this use case is currently generalized to “Staff”.

Process Owner:

- Chief Deputy Director (Chiefs of Operations, Forensic Laboratories & Forensic Medicine)

Trigger Events:

- Law Enforcement Agency requests evidence (See Use Case: Manage External Request).
- Files may be ordered via subpoena.

Pre-Condition:

- Final Mode has been determined by DME or LEA has requested evidence.
- Digital evidence is stored electronically and associated with the electronic case file.
- LEA has been notified of evidence.

Post-Condition:

- All evidence has been shared and DMEC record has been updated.

Use Case Flow:

1. Staff verifies evidence is ready to be shared and creates lists of evidence ready for “pick-up” (digital sharing). These lists are organized by LEA and case.
   a. The system shall display Final Mode status and availability for evidence to be released (shared).
2. Staff shares digital evidence electronically with designated LEA associated with the case.
   a. The system shall allow staff to share digital evidence electronically with LEA(s).
   b. The system may generate a notification to LEA (“Evidence file ready to be shared…”).
   c. The system shall track whether LEA has been notified of digital evidence release.
   d. The system shall have the capability to record and track communication with LEAs.
   e. The system shall record the desired method of release (digital evidence may be shared electronically via multiple channels).

Alternate Flows:

- Case Does Not Have LEA Case Number:
  - The system shall display whether an LEA is associated with the case, even if DMEC does not have the associated LEA case number (i.e. record of jurisdiction at scene).
  - The system shall display original location/jurisdiction of homicide investigation (e.g. projectile found at autopsy but gunshot was in another jurisdiction where LEA investigation started).

- Physical Copy of Digital Evidence Is Required:
  - Examples include but are not limited to:
    - Printed photos (DMEC has a photo processing lab)
    - CD-ROM
    - Flash Drives
  - Trigger Event: DMEC receives a service request to share evidence (e.g. subpoena).
  - Pre-Condition: DMEC Accounting knows how much to charge for requested item(s).
  - Staff creates copy of digital evidence. Action is tracked and each copy is given a unique identifier.
  - Creation of physical copies is a daily process. The items can be picked up by requesting agency the following day.

Cycle Time & Performance Metrics:

- Time duration between request for digital evidence and receipt of digital evidence
- Costs and volume of digital-to-physical requests

Required Capabilities in Future State System:

- Enable sharing of digital files between DMEC and external agencies (e.g. scene photo sharing with LASD)
- The system shall create a report of evidence available for release.
- The system shall have the capability to send notices including lists of evidence available for release or directly sending notice to LEA's case management system.
- The system shall track contact information for LEAs that receive evidence.
- The system shall have the capability to record DMEC staff member releasing evidence ("Audit" capability).
- The system shall have the capability to record any LEA case numbers associated to DMEC case numbers.
- Create physical copies of digital evidence upon request (e.g. print, CD-ROM).

5.7 Dispose of Evidence

Purpose & Objectives:

The evidence possessed by DMEC, must be disposed in accordance with case-specific retention policies. This use case documents the process of evidence disposal when an item reaches expiration.

Actor/Role:

- Evidence Unit Staff
- Note: It is assumed the physical copies of digital evidence do not need to be created unless requested but to be shared. If physical copies of digital evidence are created, then there is a retention policy. It is assumed the retention policy for digital evidence is to never dispose of the evidence.

Process Owner:

- Chief of Forensic Laboratories

Trigger Events:

- Evidence staff review inventory of physical evidence for potential disposal.
  Note: This information shall be regularly generated as a report.

Pre-Condition:

- Evidence is in known location and associated with case file.
- Any associated parties' (e.g. LEAs, NOK) own retention/jurisdictional claims to evidence are known and past expiration.
- Daily report of evidence available for disposal is available for review.

Post-Condition:

- Physical evidence is disposed.
- Digital evidence is retained – It is assumed digital evidence follows the retention policies of the digital case file (i.e. retained forever).

Use Case Flow:

1. Evidence Unit Staff regularly sweeps evidence inventory for items ready for disposal.
    a. The system shall provide a simple, ranked display of evidence items that have qualified for disposal (e.g. passed retention period). Item descriptions and locations are clearly displayed.
    b. The system shall clearly list any associated LEAs or NOK parties that may have a claim to evidence.
2. Staff completes any necessary diligence/research on evidence associated to an LEA case number.
    a. The system shall facilitate any necessary communication with an LEA point-of-contact by case number.
3. Staff confirms and locates evidence items that have passed expiration date. Staff disposes of evidence.
    a. The system shall update evidence status as "Disposed".

Alternate Flows:

- Evidence Has Passed Retention Period, but Does Not Have Associated LEA Number:
  - Staff completes research on evidence without associated LEA case numbers.
  - The system shall allow staff to identify whether evidence has been thoroughly researched (previously) and no LEA case has been identified.
  - The system shall log attempts at contacting LEA and document any conversations confirming DMEC permission to dispose of evidence prior to disposal.

Cycle Time & Performance Metrics:

- Number of DMEC cases with evidence but no LEA case number
- Number of DMEC cases that end up being homicides but LEA claims they were never notified of homicide

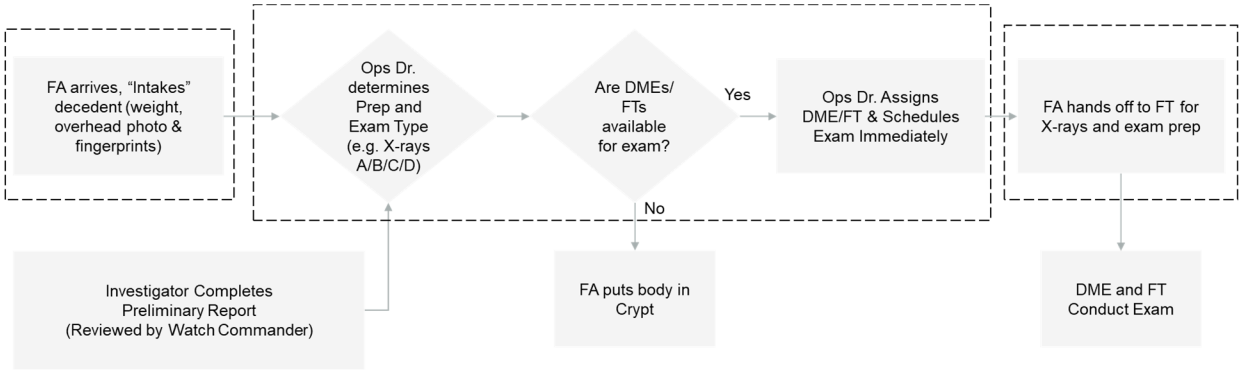
Required Capabilities in Future State System:

- Retention tracking for evidence
- History of associated LEA case numbers, contacts
- Final status post-disposal
- Audit capabilities

6.0 Autopsy/Exam & Medical Report

This section addresses use cases and requirements surrounding autopsy/exam processes in the lifecycle of a decedent case. These use cases cover (Figure 3) the time after decedent arrival at DMEC through the moment when the decedent's body is ready for release from DMEC.

Figure 3. Exam Prep & Autopsy Flow Diagram



This section covers the following use cases:

Table 5. Autopsy/Exam & Medical Report Use Cases

Use Case # - Use Case Name	Description
6.0 Autopsy/Exam & Medical Report	
6.1 – Unload and Check-In Decedent ("Intake")	Forensic Attendant processes decedent through weight, overhead photo, and finger printing.
6.2 – Determine Prep Type & Assign Exam	Ops Doc uses case notes and preliminary report to manage DME/FT schedule.
6.3 – Update Autopsy/Exam Schedules and Notify Parties	Ops Doc monitors case and staffing updates in real-time to manage DME/FT schedule.
6.4 – Prep for Autopsy/Exam (including X-ray, CT & Exam Station)	Forensic Technical (FT) processes decedent through any X-rays or CT scans, and prepares for an autopsy with a DME.
6.5 – Conduct Autopsy/Exam, Draft Report (Ready for Release)	DME and FT conduct autopsy.
6.6 – Write & Complete Report	DME creates test orders and writes Medical Report.

6.1 Unload and Check-In Decedent ("Receiving")

Purpose & Objectives:

The goal of this use case is to check-in the decedent at DMEC's Forensic Science Center (FSC). The Forensic Attendant (FA) who transports the decedent in a DSU van may be responsible for recording decedent weight, height, capturing overhead photo, and fingerprinting/conducting Live Scan of the decedent. Alternatively, there may be dedicated FA staff handling the check-in process. If the van driver FA follows his/her decedent case through check-in, an FA will prepare the decedent through hand-off to Forensic Technician (FT).

Actor/Role:

- Forensic Attendant (FA)

Process Owner:

- Chief Deputy Director (Chiefs of Operations & Forensic Medicine)

Trigger Event:

- Decedent arrives at FSC.

Pre-Condition:

- Case has been created in the case management system.
- FA has arrived with decedent in DSU van.
- FA is available to unload body and conduct receiving steps before autopsy/exam prep.
- Resources needed for check-in are functioning and available (e.g. weight station, X-ray machine).

Post-Condition:

- Decedent has been weighed, overhead photographed, and fingerprinted.
- Supervising Deputy Medical Examiner (DME) (aka "Ops Doc") has been notified that decedent has been checked in.
- The decedent is either in the crypt or has been passed directly to FT for pre-autopsy/exam preparation.
- Senior Doctor has made CT decisions for all bodies currently at DMEC.
  Note: For CT processing details, see Use Case: Prep for Autopsy/Exam (including X-ray, CT & Exam Station).
- Decedent status and location are up-to-date in system.
- If case prep is undetermined & Preliminary Report has been received by DME:
  - Ops Doc has determined that decedent should either be placed in crypt or transferred to FT for immediate preparation for exam (including X-rays, CT scans, and finger removal if needed). See Use Case: Determine Prep Type & Assign Exam.
  - Ops Doc has determined preparation (e.g. X-rays required (Y/N)) and made a preliminary determination of autopsy/exam type. See Use Case: Determine Prep Type & Assign Exam.

Use Case Flow:

1. FA unloads decedent at FSC and records arrival of decedent.
   a. The system shall record arrival of decedent at FSC. Check-in shall be facilitated via unique identifier on decedent (e.g. barcode or RFID).
   b. The system shall update FA status and DSU vehicle status, as well.

2. FA weighs decedent and takes overhead photo.
    a. The system shall track movement and completion of work at each station.
        i. System records weight of decedent.
        ii. System records/uploads overhead photo in real-time so it can be viewed by others. See Use Case: Manage Digital Evidence (Photos, X-rays, CTs).
3. If Transport takes decedent back to clear of artifacts, then case will jump directly to fluoroscope.
4. FA takes fingerprints of decedent and initializes a Live Scan search.
    a. The system associates fingerprint file and Live Scan search results to case record.
    b. For cases that cannot be fingerprinted, the FA refers the case for special processing. In special processing cases, fingerprint and palm print files are sent to the appropriate agencies (e.g. severely decomposed bodies).
        i. The system shall allow a user to refer the decedent internally for special processing.
        ii. The system shall allow a user to collect specimens from the decedent for further processing, including potential sending out external to DMEC, to assist in identification.
5. FA notifies Ops Doc that decedent is checked in and ready for further processing or exam. See Use Case: Determine Prep Type & Assign Exam.
    a. The system updates status of decedent check-in.
6. If Ops Doc confirms DME availability and decides to process decedent for same-day autopsy/exam, then FA hands-off decedent to FT as directed by Ops Doc.
    a. The system updates transfer of decedent from FA to FT.
    b. See Use Case: Determine Prep Type & Assign Exam for list of DME statuses (Required Capabilities in Future State System section).
7. If Ops Doc decides to delay exam (or if Ops Doc is unavailable), then FA checks decedent into the Crypt. FA reviews system for available/recommended crypt location.
    a. The system shall display available locations.
    b. The system shall maintain inventory of all crypt locations and decedents (See EXCEL – SMTL 11042018).
8. FA—along with an associated supervisor and/or Ops Doc—conducts quality control check on “Receiving” processes and double-checks that the right bodies are in the right place(s). FA checks decedent into crypt location.
    a. The system shall record decedent check in to crypt or FT’s workstation.
    b. Note: Ideally, each crypt location shall have an electronic ID, so that FA staff can scan crypt location and barcoded toe tag, thus avoiding accidental misplacement.

Alternate Flows:

- FA Recovers Physical Property and/or Evidence During Check-In:
    - See Use Cases: Inventory & Manage Property and Inventory & Manage Physical Evidence. FA coordinates with Investigator, Property, and Evidence Staff as needed.
    - Such downstream additions to the decedent’s case record shall generate notifications for Investigator (who may be working on report writing, for example).

- Unidentified Decedent:
    - Case is escalated for follow-up with Identification unit.

- FA completes check-in processes, but likelihood of direct transfer to FT for autopsy/exam prep is reduced.
- The system shall track and highlight unidentified statuses prior to decedent being loaded into the crypt.
- See Use Case: Identification and Notification of DOE Cases.

- Decedent Arrives Overnight:
  - Weighing/overhead photo/fingerprints are still conducted upon arrival at FSC.
  - Decedent is placed in crypt (awaiting morning shift).
  - Case information is compiled with other overnight arrivals for morning staff to plan the day's autopsy/exam schedule.

- Case Requires Assessment by LEA at DMEC Facilities:
  - If case requires an on-premises assessment by a Law Enforcement Agency at DMEC, then the decedent must be held for a pre-determined time window. The courtesy of offering a time window for LEA assessment requires a "default" time (daily) to notify LEAs of decedents eligible for their assessment. In general, and to accommodate LEAs, this type of cases is typically scheduled first thing in the morning.

Cycle Time & Performance Metrics:

- Timestamps including, but not limited to the following:
  - Arrival, Receiving start ("unload"), Intake stages, Intake complete, FT prep start
- Case breakdown by prep type and exam type

Required Capabilities in Future State System:

- Automatically records timestamp for each physical stage of "Receiving".
- Communication between FA and Ops Doc, FT, DME is supported.
- The system shall track user information for each step of the receiving process (i.e. who weighed the decedent).
- The system shall update crypt location availability and occupant list/locations.
- Crypt location tracking is barcode-enabled.

6.2 Determine Prep Type & Assign Exam

Purpose & Objectives:

DMEC shall classify all autopsy/exam types conducted at DMEC to promote case completion within NAME standards (48 hrs.). This use case documents processes performed by the Supervising Deputy Medical Examiner (DME) (aka “Ops Doc”) to ensure autopsy/exam quality standards, support associated report completion, and proactively determine cause of death.

Actor/Role:

- Ops Doc
- Supporting Actors: FA (intake (unload, weight, overhead photos, fingerprints)); Forensic Technician (FT); Supervising FT

Process Owner:

- Chief of Forensic Medicine

Trigger Events:

- Decedent has been “checked-in” to crypt or to FT workstation.
- Preliminary Report is completed and has been communicated to Ops Doc.

Pre-Condition:

- Ops Doc knows DME and FT availability (incorporating pre-determined weekly schedules, real-time statuses, and on-duty staff skillsets).
- Ops Doc knows station availability and machine statuses.
- Ops Doc has access to Preliminary Report information from Investigator.
- Ops Doc has access to backlog case information (pre-autopsy/exam decedents in crypt).
- Ops Doc knows the cases that require Law Enforcement Agency (LEA) participation.

Post-Condition:

- DMEs & FTs are assigned for exams. Decedent prep and expected exam complexity have been determined by Ops Doc. All cases are accounted for.

Use Case Flow:

1. Decedent arrives at FSC and/or Preliminary Report info reaches Ops Doc. Ops Doc makes an initial decision of case complexity to determine what prep will be required of the FA and FT.
    a. The system shall provide visibility to case notes in real-time, including the Preliminary Report. Alternatively, the Ops Doc may communicate verbally with the Investigator to better understand the situation.
    Note: It is assumed that the Investigator is available for this type of consultation in-person or via mobile phone.
    b. The system shall alert associated parties and automatically update their schedules when the complexity of an assigned case’s prep is determined.
2. Ops Doc further evaluates case information, check-in information, and/or Preliminary Report to determine anticipated exam type. Essentially, the Ops Doc creates the “work order”.
    a. The system input shall update schedules/statuses for staff, resources, and cases.
3. Based on availability and prep/exam complexity designation, the Ops Doc assigns cases to FT and DME staff.

   a. The system shall display an Ops Doc “Dashboard” view of exams currently being performed and scheduled to be performed, as well as unscheduled decedent cases for the day.
   b. The system shall allow for assignment of cases to a trainee (fellow or resident) with DME supervision
4. Upon completion of the autopsy/exam, the Ops Doc reviews prep and exam outputs to assess whether complexity determinations were accurate and followed by medical forensic staff and enters the information into the case system.
   a. The system shall display and report on relevant data and highlight any discrepancies between designated prep and exam type and actual elapsed time result in alerts to Ops Doc (i.e. if a “simple” prep takes 2+ hours).

Alternate Flows:

- Backlog Cases:
  - The same procedure is followed by the Ops Doc to classify and schedule necessary prep and autopsy/exam for any backlog decedents (e.g. bodies that arrived overnight).

- Case Complexity Changes Mid-Prep and/or Exam:
  - FT and DME must have functional capability to update status, extend prep and/or autopsy/exam expected time, and escalate issues to the Ops Doc.
  - Ops Doc should have ability to shuffle FT/DME staff as needed throughout the day.

Cycle Time & Performance Metrics:

- Accuracy of prep type determinations
- Accuracy of exam type determinations

Required Capabilities in Future State System:

- Case Management System needs capability to create weekly/monthly schedules for all medical forensic staff.
- Ops Doc must be able to update status (e.g. no-shows).
- The system shall provide “Dashboard” functionality to display availability and automatically update statuses at time of assignment.
- DMEs/FTs must be able update their own status (including via terminal on autopsy/exam service floor; multiple terminals available).
- In any case of verbal communication between Ops Doc and Investigator, a memorialized, digital record must be maintained in the system.
- DME statuses may include, but are not limited to (visible to Ops Doc for start of day and mid-day scheduling purposes):
    - Ready for Autopsy/Exam Assignment
    - Conducting Autopsy/Exam
    - Busy – Report Writing (Note: This time must be protected.)
    - Busy – Paperwork Day
    - Busy – Other
    - Busy – Court/Appointment*
    - On-Duty as Duty Doctor

  *Note: Doctors frequently get scheduled for non-urgent appointments (e.g. family member calls to discuss autopsy results). Most are scheduled in the afternoon, but may cause a restraint on number and complexity of cases to be assigned for the day. To the extent possible—and as a preference—Subpoena Desk staff should try to schedule non-urgent appointments on days when the impacted DME is on his/her Duty Doctor shift (“Duty Doctor day”) or paper day.
- FT statuses may include, but are not limited to (visible to Ops Doc for start of day and mid-day scheduling purposes):
    - Preparing Workstation
    - Ready for Autopsy/Exam

6.3 Update Autopsy/Exam Schedules and Notify Parties

Purpose & Objectives:

The Supervising Deputy Medical Examiner (DME) (aka “Ops Doc”) shall work proactively to anticipate and classify decedents’ required prep and autopsy/exam processes. However, he/she must also manage the medical forensic staff schedule throughout the course of each day. This use case documents the Ops Doc’s responsibilities around managing an efficient autopsy/exam schedule as DMEs and Forensic Technicians (FTs) may experience changes in availability and status—both expectedly and unexpectedly.

Actor/Role:

- Ops Doc
- Supporting Actors: DME, FT, Supervising FT

Process Owner:

- Chief of Forensic Medicine

Trigger Events:

- Unanticipated, priority decedent case arrives at DMEC.
- Exam schedule and/or DME/FT status altered due to unforeseen case complexity/priority change.
- Mid-shift DME/FT availability changes (e.g. illness).
  Note: These changes may be communicated directly by medical forensic staff to Ops Doc, or observed in background review by Ops Doc.
- Two-hour interval alarm goes off (Ops Doc revisits his/her dashboard and classifies exams/autopsies as permitted by on-duty FT/DME availability).

Pre-Condition:

- Ops Doc knows DME and FT availability (incorporating pre-determined weekly schedules, real-time statuses, and on-duty staff skillsets).
- Ops Doc knows station availability and machine statuses.
- Subpoena Desk staff have tried to schedule all non-urgent DME appointments on “Duty Doctor days” (thus freeing up maximum time for autopsies/exams and urgent appointments).

Post-Condition:

- Schedules have been updated.

Use Case Flow:

1. Ops Doc identifies an ongoing or upcoming conflict in staff and exam/autopsy schedule.
    a. The system shall record a temporary “Schedule Conflict” flag on case record.
    b. The system shall notify involved staff that conflict is recognized and under review by Ops Doc.
2. Ops Doc communicates directly with affected staff (e.g. previously assigned DME who had to leave mid-shift and pre-autopsy/exam due to illness).
    a. The system shall create a record of each interaction and associate it to the case record.
3. Ops Doc reviews his/her options for rescheduling and/or reassigning the affected decedent case for autopsy/exam.
    a. The system shall provide an intuitive, informative “Dashboard” display to support Ops Doc efforts in shifting and arranging autopsy/exam schedule.

4. Ops Doc enters updates once a resolution plan is identified.
    a. The system shall update decedent case record and status, as well as affected staff statuses.
    b. The system shall notify Ops Doc when newly assigned FT/DME confirms receipt of autopsy/exam schedule update.

Alternate Flows:

- Ops Doc Is Unable to Resolve Schedule Conflict:
    - In cases where current staff availability prevents the Ops Doc from resolving and rescheduling a decedent autopsy/exam, the system shall all him/her to escalate the issue to internal and external parties who may be impacted by the delay.
    - If an exam cannot be completed during the assigned shift, then the decedent is moved to the crypt. Ops Doc will review up-to-date case information to ensure that progress is not lost between “stop” point and eventual “re-start” point. The system shall track these cases as “backlog” to be scheduled for continued exam.
    - The system shall flag significantly delayed cases and record reason for delay (as entered by Ops Doc and/or DME).

Cycle Time & Performance Metrics:

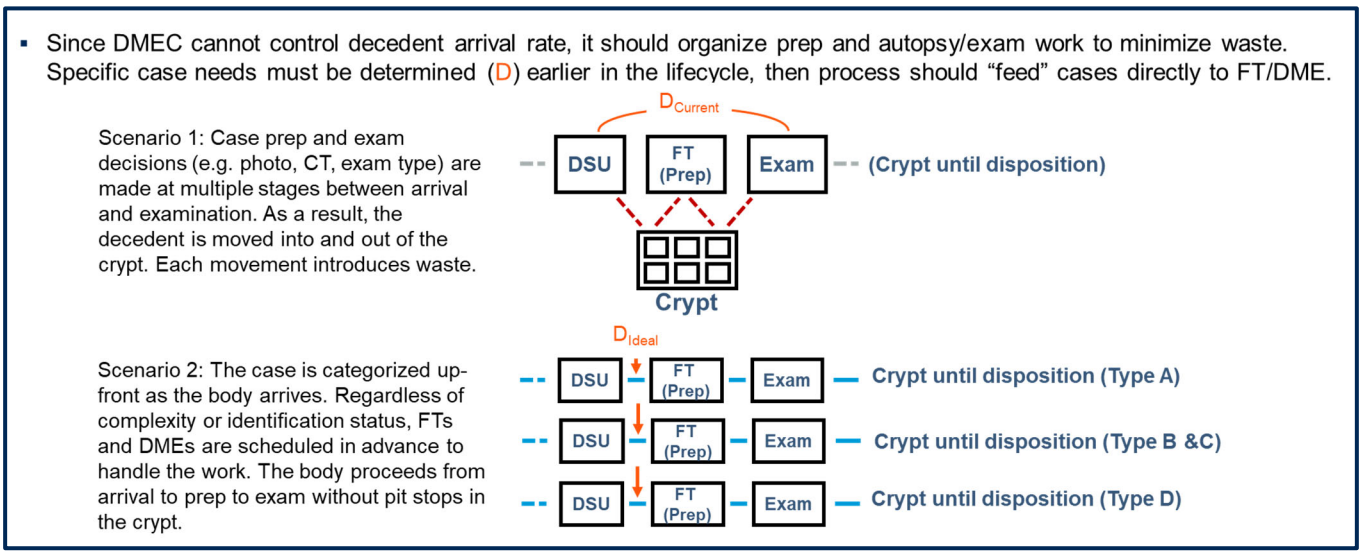
- Issue resolution time
- Staff utilization
- Staff delays by type and individual

Required Capabilities in Future State System:

- The system shall provide contact information and visibility to staff location/status.
- “Dashboard” view of current decedent cases and FT/DME staff availability (current and near term).
- The system shall measure anticipated conflicts at varying degrees of severity (e.g. “Yellow Alert: DME Smith has two autopsy/exams scheduled with less than 30 minutes between them”, “Red Alert: DME Jones is scheduled to begin autopsy/exam in 10 minutes and has not updated status to ‘Ready for Autopsy/Exam Assignment”).

6.4 Prep for Autopsy/Exam (including X-ray, CT & Exam Station)

Figure 4. Illustration of Autopsy/Exam Prep Lines to Minimize Crypt Movement



Purpose & Objectives:

As soon as check-in procedures are completed by the Forensic Attendant (FA), the case is handed to a Forensic Technician (FT), who conducts a series of preparatory steps in advance of autopsy/exam. The level of detail of this prep is determined on a case-by-case basis by the Ops Doc (ideally prior to decedent arrival to FT; See Use Case: Determine Prep Type & Assign Exam). This use case follows all prep processes until Deputy Medical Examiner (DME) is ready for the examination.

Actor/Role:

- Forensic Technician (FT; aka "Exam Tech")
- Supporting Actors: Dedicated FTs for photography, X-ray, fingerprints

Process Owner:

- Chief of Forensic Medicine

Trigger Events:

- Supervising FT receives assignment from Ops Doc and assigns FT (and DME) to decedent.

Pre-Condition:

- Decedent has arrived at Forensic Science Center (FSC), post-receiving.
- Preliminary Report information is available to Ops Doc.
- Ops Doc has made decision on prep type and exam type based on Preliminary Report.

Post-Condition:

- Decedent is ready for autopsy/exam.
- Decedent has been moved to Exam station.
- Exam Station is prepared and ready for DME to begin exam.

Use Case Flow:

1. Forensic Attendant (FA) delivers decedent to assigned FT, who scans decedent into his/her custody.
    a. The system shall confirm chain of custody transfer and records timestamps.
    b. The system shall update case, FA, and FT availability statuses.
2. If applicable, FT delivers decedent to X-ray tech and X-rays are collected. See Use Case: Determine Prep Type & Assign Exam for DME determination process for X-ray requirement.
    a. The system shall alert FT within case record view if X-ray is required.
    b. The system shall provide visibility into X-ray equipment and support staff availability. If either are limited to point of interference with case prep, then issue is escalated to Ops Doc.
    c. The system shall allow an authorize user to confirm required imaging has been completed (e.g. x-ray, CT and Live Scan).

    Note: Same sequence applies for CT and Live Scan (when required).
3. FT prepares autopsy area, equipment, and forms (electronic).
    a. Forms are automatically uploaded within the case file and displayed intuitively. Note: This is empowered by Preliminary Report information and—eventually—final Investigative Summary Report information.
4. FT rolls decedent body to available autopsy/exam space and updates the location.
    a. The system shall provide the capability to track decedent location and real-time status of staff and resources.
5. FT conducts additional prep. Note: Timing of label printing is subject to DME preference and may be up for policy discussion. In some cases, FT will create labels ahead of time for standard collections and as specimens are collected. FT is capable of basic troubleshooting through common label printer issues and raw material (label/ribbon) reinstallation.
    a. The system shall provide user-friendly interface, prompting FT to complete necessary steps and collect necessary prep information (e.g. measurements of body, equipment checklist for autopsy/exam).
    b. The system shall pull specific data from prep entry to populate downstream reports.
    c. The system shall have the capability to print barcoded labels.
6. FT suits up for autopsy/exam.
    a. The system shall provide visibility into assigned DME's schedule and location around expected start time.
    b. The system shall alert DME and provide station location and start time info.
    c. The system shall log confirmation from end of prep (by FT).

Alternate Flows:

- Unanticipated Delays within Prep Stages (e.g. unforeseen complexity):
    - FT updates case and his/her own status in system.
    - Ops Doc receives alerts and manages schedule updates (See Use Case Determine Prep Type & Assign Exam).

- FT Shift Ends Shortly After Prep Concludes, New FT Assigned for Autopsy/Exam:
    - The system shall support transfer of assignments between Prep and Autopsy/Exam.

- Ops Doc is alerted for such cases, as early as possible.

- FT Is Assigned to Multiple Autopsy/Exam Case Prep Simultaneously:
  - The system shall notify Ops Doc of parallel prep responsibilities.
  - The system shall support clear distinctions between cases to minimize incidents of confusion.

- FA Unable to Recover Prints from Live Scan:
  - Supervising FT and dedicated FT assess alternative methods to recover prints.
  - If no Live Scan, then ink.
  - If ink doesn't work, then FT shall flag the case for chemistry process (fingerprint specialist requested).
  - Body is moved to "In Chemistry" status, held at crypt.

- Additional prep time may be required for the following:
  - Sexual assault kit
  - Criminalist consultation
  - Dental consultation
  - Culture bottles and paperwork, cassettes, additional storage containers

  Note: Ops Doc might have opportunities to identify these additional needs and contact associated parties (e.g. Criminalist) ahead of time.

Cycle Time & Performance Metrics:

- Elapsed time between various stages of prep
- Breakdown of prep type (simple vs. complex); accuracy of determinations
- Equipment utilization and downtime reported data

Required Capabilities in Future State System:

- Chain of custody support
- The system shall provide barcode technology for FT acceptance and movement of decedent across various stages of prep, including receipt from FA.
- Chain of evidence tracking for any specimens/items involved in decedent's exam
- Timestamps across individual prep stations
- Prep station status capability
- Ops Doc and assigned DMEs' visibility into case statuses ("Dashboard" view)
- Autopsy/exam room equipment to support form entry, case info visibility and integrate with report writing (including populated data from Preliminary Reports, as approved by Ops Doc).
- System provides DME/FT team with access to X-ray files and studio photos (which are uploaded in real-time).
  - Note: A future state document/content management system may be pursued to strengthen the storage and management of digital files associated with a case (including X-ray and CT scan image files). Any instance of a centralized repository granting visibility/access to multiple divisions must also support audit trail functionality (i.e. track chain of custody). Additionally, the system shall support image file annotations, measurements, and additional applications for court preparation and/or staff education, while also preserving the original image files and tracking modifications (date, user). Finally, the system shall support keyword tags and search functions to provide a scientific basis for medical findings.

- Internal messaging supported to flag follow-up items and notify users who need to complete an associated process (e.g. DME notices bite marks during autopsy, notifies specialist to report to service floor for assessment).
- User profiles to capture and communicate preferences as they relate to autopsy/exam processes (e.g. “Dr. Smith prefers for FT to print standard labels prior to autopsy/exam”).
- Support specialist requests.

6.5 Conduct Autopsy/Exam & Make Ready for Release

Purpose & Objectives:

This use case documents the completion of an autopsy/exam to the extent required for a given decedent case. Deputy Medical Examiner (DME) and Forensic Technician (FT) staff resources and equipment/space resources are tracked, monitored, and updated over the course of the autopsy /exam. This use case also encompasses DMEs ordering any Consults, drafting of the medical report and any final “wrap-up” steps to prepare decedent for eventual release.

Actor/Role:

- Deputy Medical Examiner (DME)
- Supporting Actor: Forensic Technician (FT)

Process Owner:

- Chief of Forensic Medicine

Trigger Events:

- FT has prepared the body and exam station and has notified the assigned DME.

Pre-Condition:

- Decedent is ready for autopsy/exam.
- DME is assigned an autopsy/exam, either from the backlog of decedents awaiting examination or in the form of a new case.

Post-Condition:

- Autopsy is complete.
- Consults have been requested.
- Specimens and test orders have been submitted to lab.
- Draft Medical Report is complete.
- Decedent is ready for release.

Use Case Flow:

1. DME acknowledges autopsy/exam assignment.
    a. System provides simplified visibility into pertinent case details (e.g. Preliminary Investigative Report info, scene photos, case notes, assigned FT info, prescribed exam type – per Ops Doc).
2. DME confirms autopsy/exam type and confirms unique identifier of decedent. (Note: The following level of detail is determined by the level of required examination – i.e. some exams will not require creation of specimens).
    a. The system shall update case status to “Active” and start the autopsy/exam “clock” (external examination).
    b. The examination time shall be broken up into “external examination” and “internal examination”. This will allow detailed tracking of how long each section takes to complete. For example, an external examination of a 30+ gunshot wound may take more than two hours, while an overdose case may only require 10 minutes.
    c. The system shall record how long different exams take based on exam types (e.g. A, B, C) and injury descriptions.
    d. The system shall allow a user to update an estimated duration for standard exam types so as exam types are identified the system can estimate exam schedules and DME workloads.

3. DME notes in the system when he/she starts and completes both “external examination” and “internal examination” portions of the autopsy/exam.
    a. The system shall allow FT to assist in making case time entries mid-exam.
4. DME/FT creates specimen labels and prints (subject to DME preference and FT system access).
    a. The system shall create labels including barcodes.
5. DME instructs FT to open body and remove the organs. Organs are weighed and information is recorded.
    a. The system shall allow staff to use touch screens to enter information into the system.
    b. The system shall auto-populate downstream forms and medical report with information entered during the exam.
    c. The system shall provide checklists and standard forms for different types of autopsies, decedents, and anatomy of decedents.
6. DME/FT labels specimens and stores them. DME/FT confirms which specimens were collected from decedent and updates the case file. In addition to specimen support, FT shall also assist DME in labeling medical/physical/projectile evidence for time efficiency. Note: Labeling bullets after the autopsy can add an additional hour to case processing.
    a. The system shall have the capability to update status (and list) of associated specimens and their locations.
7. DME/FT alerts Forensic Lab of test orders. See Use Case: Send Test Orders.
8. DME requests consult(s).
    a. The system shall allow staff to create requests for consults on a case including but not limited to;
        i. Radiology Cons (DMEC writes a note to a remote radiologist, transmits X-ray files, receives his/her consultation electronically)
        ii. Eye Path Cons
        iii. Brain – Neuro consult or DME to cut (typically conducted at DMEC)
9. DME/FT finishes autopsy/exam.
    a. The system shall allow staff to indicate an autopsy /exam has been completed by electronic signature.
10. DME records that the decedent is ready for release and enters cause of death.
    a. The system shall update the case record and capture time when decedent was identified as ready for release.
    b. The system shall capture “Preliminary Notes” snapshot of DME autopsy notes at time decedent is ready for release.
    c. The system shall allow staff to indicate a cause of death for the decedent.
11. DME/FT hands off custody of decedent and/or processes decedent in to crypt.
    a. The system shall track crypt location of decedent.

Alternate Flows:

- FT Is Assigned to Multiple Autopsies/Exams Simultaneously:
    - The system shall require confirmation of decedent identifier to minimize confusion of data entry between cases.
    - The system shall allow an FT to work on multiple cases at a single point in time. If there is a need to assign multiple autopsies to an FT, the system shall prioritize assignment of multiple autopsies with the same DME to an FT (i.e. DMEs/FTs are assigned to autopsies in teams).
    - Ideally, this alternate flow shall only apply in cases where an FT is assigned to multiple autopsies/exams under a single DME. As a rule, technicians should not

have overlapping tasks with multiple doctors. This typically results in errors and waiting.
    - The system shall prevent doctors from being assigned or starting work on multiple exams at one time.
- FT Is Assigned to Additional Tasks (e.g. dishwashing):
    - In addition to exam/autopsy responsibilities and assignments, the system shall support non-exam/autopsy responsibility scheduling. The Supervising FT manages these actions in a similar fashion to FTs' autopsy/exam assignments. See Use Case: Update Autopsy /Exam Schedules.
- Pregnant Decedent:
    - When an unborn child is delivered in the autopsies/exam, FTs will call control desk and create a new case. DME/FT team experiences an unanticipated second autopsy/exam because of the initial one. Notifications section and DSU must be notified so that both individuals may be released. Both cases shall be linked to facilitate tracking and follow-up (e.g. NOK processes).
    - Ops Doc manages schedules as needed.
- Autopsy /Exam ends and DME identifies the need to hold the decedent (not release).
    - The system shall allow staff to indicate that exam has been completed but decedent is not ready for release.
- Autopsy /Exam ends and DME has not identified a Cause of Death.
    - The system shall allow staff to indicate that a decedent is ready for release but no cause of death has been identified (i.e. "Deferred" status).
- DME Requests Consultations – See Form 15 for different consult requests.
    - At various points of autopsy/exam, the DME may order consult requests.
    - The system shall generate notifications and provide confirmation when consults are accepted or scheduled.
    - The system shall identify cases with pending consult requests.
    - The system shall identify when a consult request has been fulfilled.

Cycle Time & Performance Metrics:

- Autopsy/exam duration by case type
- Autopsy/exam stage durations within overall time of autopsy/exam
- Error incidents (e.g. switched specimens)

Required Capabilities in Future State System:

- The system shall support voice-to-text and similar capabilities.
- The system shall provide and support an electronic evidence log.
- "Ready for Release" button, hit by DME post autopsy/exam to signify NAME clock stop
    - Functionality should be available to DMEs at service floor.
- The system shall alert DME when cases are assigned, including anticipated schedule impact for the day (e.g. body expected to arrive at 14:00, exam type B anticipated (2 hours to complete), next available at approximately 16:10).
- The system shall allow DMEs to order consult requests and assign them to specialized DMEs or consultants.
- The system shall provide the capability to interface with EDRS when EDRS is ready to support such integration.

6.6 Write & Complete Autopsy Report

Purpose & Objectives:

The Deputy Medical Examiner (DME) writes a Medical Report for each assigned autopsy/exam. This use case documents processes associated with the report writing.

The timeline of Medical Report writing is particularly relevant to DMEC's NAME accreditation efforts. The NAME target is to complete 90% of reports within 90 days.

Actor/Role:

- DME
- Supporting Actor: Ops Doc

Process Owner:

- Chief of Forensic Medicine

Trigger Events:

- Autopsy/exam is complete. Test results may be provided.

Pre-Condition:

- Investigator has completed Preliminary Report.
- FT/DME have entered information during autopsy/exam.

Post-Condition:

- Final Medical Report is complete.

Use Case Flow:

1. DME follows-through on assigned decedent case, or pulls case from pool requiring report writing.
   Note: The Medical Report may be written and signed same-day as autopsy/exam (no additional pieces needed). However, the more likely scenario is that the DME cannot complete his/her report that day because the case is waiting for additional information (e.g. police report, toxicology, medical records, histology, specialty consult(s)).
   a. The system shall clearly display pending case statuses and reasons for delay/missing pieces. This information should be displayed to both DME, Senior DME and Public Services staff.
   b. The system shall display turnaround time since examination (eg green button for less than 60 days, yellow button for past 60 days, and red button for past 90 days)
   c. The system shall have push notifications for completed ancillary reports/request
   d. The system shall generate an electronic signature with a timestamp upon report completion.
2. DME begins writing Medical Report.
   a. The system shall reflect DME status as "Busy – Report Writing".
   b. It is anticipated that the system shall have standardized report templates for different types of autopsy/examination and it is further assumed that the system can pre-populate key pieces of the report from already collected case data {e.g. name, circumstances of death, type of autopsy performed, test results, decedent weight, decedent height, decedent BMI (via built in calculator) decedent eye color}.

c. The system shall have modules to develop a report depending on the extent of examination (e.g. external examination, internal examination, evidence of injury, cause of death/manner of death entry, summary and opinion, neuropathology consult etc).
d. The system shall have modules that differentiate an adult examination from a pediatric examination {eg. External examination (adult/pediatric), internal examination (adult/pediatric) etc}.
e. The system shall have examination modules that can incorporate DME specific templates into a free text box.
f. The system shall reflect review status of ancillary reports (e.g. toxicology, consult reports etc) by DME.
g. The system shall provide a case dashboard with links to review photos, investigator reports, toxicology and radiology while working on the examination report.
h. The system shall have a single entry for cause and manner of death that auto populates in other areas of the system to prevent multiple manual entries
i. The system shall have digital diagrams that can be drawn on, with each drawing having a separate free text box with heading linked to it. See DMEC's inventory of paper forms for current diagrams (e.g. adult and pediatric protocols).
j. The system shall have the ability to schematize autopsy photographs which can be annotated.
k. The system shall have the ability to scan and upload bar coded documents to allow flexibility in using a digital report versus hand written.
l. The system shall have the capability to search all examination reports for key words.
m. The system shall have the ability to create a miscellaneous form for DME notes (separate from case notes) that is with the electronic case file but not automatically disseminated upon request for the examination report.

3. DME completes writing Medical Report, confirms that no further processes are needed, and hits "Ready for Review" button.
    a. The system shall perform completion check to verify all outstanding requirements have been completed (e.g. cause and manner of death, test results reviewed)
4. DME reviews and approves Medical Report.
    a. The system shall capture timestamp and eSignature.
    b. The system shall generate an alert to Ops Doc whenever DME completes a report.
    c. The system shall allow authorized users to check the status of report completions.
    d. The system shall also generate alerts when cases' medical reports have not been submitted after a pre-determined length of time (from time of prep end).

Alternate Flows:

- Items may be pending, preventing completion of the Post Mortem Report.
    - The DME may request items after the autopsy/exam is completed.
        - These requests shall produce queues for the user responsible for follow up items
    - See Use Case: Conduct Autopsy/Exam, Draft Report (Ready for Release).
    - The system shall track pending items after exam including but not limited to:
        - Investigator Follow-Up:
            - Police Report

- Medical History
- Investigations
- Admission blood

- Forensic Medicine Follow-Up:
  - Radiology Cons (DMEC writes a note to a remote radiologist, transmits X-ray files, receives his/her consultation electronically)
  - Eye Path Cons
  - Brain – Neuro consult or DME to cut (typically conducted at DMEC)
  - Other - histopathology is sent out (samples go out for blocks/slides, which come back from an external party)
    Note: Testing is not limited to those items listed on Form 15.
- Forensic Laboratory Follow-Up:
  - Tox for Cause of Death (COD)
  - Tox for Rule-Out (R/O)
  - Microbiology
  - Criminalistics – Gunshot Residue (GSR), Sexual Assault, Other

- **Trainee DME**
  - DMEs in training can complete Medical Reports. In these cases, the report will be forwarded to the respective Supervising DME for review and approval.
    - The system shall have a Supervising DME review and approve Medical Reports completed by trainees.
- Death Becomes Homicide:
  - DMEC will notify Law Enforcement Agency (LEA).
  - The system shall support push notification capabilities to notify investigators. Notifications may be generated for such events as updating case status to homicide, request for information, etc.
- Auditing & Quality Assurance
  - Periodically, a Supervising DME will pull completed case records to review the quality of the work.
    - The system shall support random sampling of completed cases.
    - The system shall support assignment and tracking completing of a quality assurance review task on completed cases.

Cycle Time & Performance Metrics:

- Report writing timelines
- Categorization of any reasons for delayed report completion

Required Capabilities in Future State System:

- The report forms shall be integrated with upstream processes. Screens shall display existing information within the form.
- The system shall have the capability to change report status and automatically notify Ops Doc of reports requiring his/her review.
- The system shall track all follow-up processes requested for an ongoing decedent case.
- The system shall allow a DME's direct supervisor to monitor the status of his/her case work. This will provide greater visibility into which doctors are having trouble finishing their reports. Note: A DME's supervisor is not necessarily the Ops Doc.

7.0 Process Specimens & Test Orders

This section addresses use cases and requirements surrounding the forensic laboratory and the case management processes. Specifically, it documents the processing of decedent case specimens and evidence to fulfill the needs of medical and investigative staff.

Multiple items may be pending at the end of autopsy/exam. Follow-up may be required from Investigations, Forensic Medicine, and/or Forensic Laboratories.

It is assumed that the Department will pursue a separate Lab Information Management System (LIMS) to manage specimens, interface with lab robotics and instruments and process run/batch results into specimen test results per case (this includes replacing the Access database). This LIMS would interface with the department-wide case management results for the hand-off of specimens and test orders and communication of test results.

Note: Outside agencies may request Gun Shot Residue (GSR) analysis. External agencies may drop-off evidence for DMEC to test. DMEC will test and provide the results, return the evidence and send a bill to the outside agency (See Use Case: Manage External Request). Outside agencies may also request analysis of tools and/or toxicology testing.

This section covers the following use cases:

Table 6. Process Specimens & Test Orders Use Cases

Use Case # - Use Case Name	Description
7.0 Process Specimens & Test Orders	
7.1 – Send and Request Test Orders (Toxicology, GSR, Tools, etc.)	DMEs send test orders alongside decedent specimens for laboratory processing.
7.2 – Receive Specimens and Test Orders	Criminalists in the forensic laboratory receive specimens and corresponding test orders from DMEs.
7.3 – Process Specimens, Evidence & Generate Test Results	Criminalists process specimens/evidence, coordinate external processing, and return test results to DMEC staff.

7.1 Send Test Orders (Toxicology, Histology, Medical Evidence, Tool Marks, etc.)

Purpose & Objectives:

Deputy Medical Examiners (DMEs) may request the Forensic Laboratory to conduct testing to gain insight into the cause of death of a decedent.

Actor/Role:

- DME
  Note: Test requests may also originate from external sources (see Use Case: Manage External Requests).

Process Owner:

- Chief of Forensic Medicine

Trigger Events:

- Autopsy/exam is complete. Case requires post-examination follow-up, as determined by assigned DME.

Pre-Condition:

- Specimens have been collected and labeled.
- Test order has been submitted.

Post-Condition:

- Lab has received Test Orders.

Use Case Flow:

1. DME reviews autopsy notes and specimens collected during autopsy/exam.
    a. The system shall display a list of specimens collected at autopsy. Specimens can include, but are not limited to the following:
        i. Blood: Heart, Femoral (with Technique identified), or Other (specification needed)
        ii. Stomach contents
        iii. Vitreous
        iv. Spleen
        v. Kidney
        vi. Bile
        vii. Liver
        viii. Urine (with Glucose dipstick result identified)
2. DME determines test orders and requests the lab to perform (or send out) the tests.
    a. The system shall allow DME to identify tests to be conducted on various specimens, create a test order, and send test orders to the Forensic Laboratory. Laboratory tests may include but are not limited to the following:
        i. Histology: Regular or Oversized and whether the Histopathology was cut in the Autopsy or the Lab (Histopathology test orders will include the type of staining and slides requested by DME)
        ii. Screens: C, H, T, S, D
        iii. Alcohol only
        iv. Carbon monoxide
        v. GSR
        vi. Tool mark
        vii. Bite mark
        viii. Other: (specify drug and tissue)
    b. A test order applies to the “whole decedent”. The laboratory system (and staff) shall decide which specimen(s) to use for a given test.
    c. Tests and orders of tests must link to decedent case number.
3. DME reviews whether any additional test orders or requests are needed and confirms initial round of testing.
    a. The system shall allow staff to confirm that all initial round tests have been ordered for the specimens collected.
    b. The system shall also distinguish various rounds of toxicology testing as requested by the DME
4. The system shall indicate if admission blood from the hospital is available (at DMEC, or in process or retrieval) for testing

Alternate Flows:

- No Toxicology test orders may be made after examination ("You always send specimens, but may not send requests.").
    - The system shall display if no test orders were made after examination.

- Admission blood may be collected from a hospital.
    - Admission blood is collected by DSU with the body, but stored in a separate drop-off area within the crypt. Blood should not be sitting with the body.
    - While it is ideal to test the blood as soon as possible, the forensic laboratory will not run tests until they receive input from the DME.

- Specimens may be collected from the organ and tissue procurement agency
    - The system shall allow receiving and identification of specimens collected from the organ and tissue procurement agency.

- Medical evidence may be collected and need to be tested.
    - The system shall allow staff to identify if medical evidence has been logged for the case.
    - Medical evidence and paraphernalia are occasionally tested (e.g. "mystery pill" in cases where initial testing does not determine cause of death).
    - Some medical evidence collected by DMEs during autopsy may be sent to lab for testing.
    - DME would submit test order for medical evidence after reviewing case notes.

- Tool Mark Analysis:
    - Specimen is collected, logged, and tracked.
    - Test/evaluation request shall be built into system.
    - Tool Chain of Custody Form tracks transfer between external evidence-controlling party (Law Enforcement Agency) and DMEC counterpart.
    - Tissue – See Tissue Chain of Custody Form
    - Doctor shall be notified of external tool mark analysis.

- Gun Shot Residue:
    - GSR kit is collected (from Investigator or Forensic Attendant; pre-autopsy/exam), logged, and tracked on Evidence Log.
    - GSR requests for analysis are often received from detectives or District Attorney.
    - GSR Chain of Custody Form – Coroner, Outside GSR (OGSR; received via FedEx, hand-delivered)
    - GSR Case Processing Form – Rule /Out (R/O) arrives with outside kits. Form lists who is requesting it and whom to bill.
    - System shall track the number of requests received (number of kits and number of samples) and number of cases worked on.
    - System shall be able to report status of individual tests and all tests.

- Requested Material on Pending Cases:

    - Police Report
    - Med History
    - Investigations
    - Radiology Cons

- Eye Path. Cons
- Brain – Neuro consult or DME to cut
- Tox for COD
- Tox for R/O
- Microbiology (sent to LAC USC or Public Health labs (specimens and test orders); time sensitive; handled independently of other reports; results are received, checked by DME)
- Criminalistics – GSR, Sexual Assault (notification of collection by DMEC criminalist; tested externally), Other

- External test requests may be required due to exposure (e.g. first responder is exposed to decedent's blood).
  - These requests are also received by DMEC's laboratory.

- DME may request STAT test for carbon monoxide
  - The system shall support this request. Specimens and test request will be sent ahead of other specimens and test requests.

Cycle Time & Performance Metrics:

- Time between specimen receipt by lab and test order receipt
- Time duration of all types of testing
- Volume of follow-up test orders

Required Capabilities in Future State System:

- Support time and date blood was taken. Note: If blood is retrieved from a hospital, then the system shall also indicate whether it is admission blood.
- The system shall record Medical Record Number (MRN) of the decedent.
- The system shall display which procurement samples are available.
- DMEC LIMS will not need to integrate with every type of external lab processing. Case Management System should integrate. For example, microbiology results never pass through DMEC's lab, but DMEs need to view results.
- The laboratory system must support DME comments regarding prioritization of screens requested (in cases where specimen is limited) and preference of which specimens to test.
- The system shall support multiple follow-up process statuses and offer visibility of test statuses to DMEs and Lab staff (Case Pending (any Requested Material); Pending Investigative information; Pending Consultation; Pending Laboratory).

7.2 Receive Specimens and Test Orders

Purpose & Objectives:

Forensic Medicine may create specimens and test orders for the Forensic Laboratory to test. The lab must track all specimens and test orders received.

Actor/Role:

- Criminalist
- Note: Other lab staff may be involved such as evidence custodian, or lab technician.

Process Owner:

- Chief of Forensic Laboratory

Trigger Events:

- Specimens are received at the lab.
- Test orders are received at the lab.

Pre-Condition:

- Specimens have been created and sent to the lab.
- Test orders have been created and sent to the lab.

Post-Condition:

- The Lab has received and “checked-in” all specimens and test orders for a case.

Use Case Flow:

1. Criminalist reviews specimens received, performs reconciliation, and checks them into the lab. Note: Evidence Custodian or Lab Tech may conduct this step of the use case flow.
    a. The system shall allow staff to review all specimens collected and confirm receipt of specimens.
2. Criminalist reviews all test orders received.
    a. The system shall display all pending cases with an autopsy assigned and if specimens have been collected.
    b. The system shall display all pending test orders for each case and status.
3. Criminalist confirms receipt of all test orders. By confirming that test orders match specimens received, he/she can create a lab order to process specimens according to requests.
    a. The system shall visually display test order and specimen lists as checked into the lab. The Criminalist shall benefit from a simple, side-by-side view to confirm that a case is ready for specimen processing.
    b. The system shall provide relevant contact or processing instructions for external parties.

Alternate Flows:

- Some specimens may be received and immediately sent out for external testing.
    - The systems shall allow staff to identify specimens have been sent out for external testing.

- Criminalist Finds Discrepancy Upon Specimen and Test Order Receipt:
    - Case specimens are put on hold. Lab communicates with DME.

- In some cases, the system shall generate alerts automatically. For example, if lab staff scans and checks-in a specimen that the DME never claimed to have collected.

Cycle Time & Performance Metrics:

- Specimens received match specimens sent

Required Capabilities in Future State System:

- Facilitate communication between laboratory staff and medical staff (e.g. notice of discrepancies, additional testing required).
- The system shall support barcoding of specimens and test orders, association with case records, and up-to-date location and status tracking through duration of lab processes.
- The system shall send test orders to the lab (See Form 15).
- The system shall interface with a Lab Information Management System (LIMS) and send specimen test orders to the LIMS.

7.3 Process Specimens, Evidence & Generate Test Results

Purpose & Objectives:

The Forensic Laboratory will process specimens and provide results against the test orders. Some processing will occur outside of DMEC facilities, but the Forensic Lab staff will track progress and manage expectations on behalf of Deputy Medical Examiners (DMEs) and other staff who may be waiting on results to complete case reports.

Actor/Role:

- Criminalist

Process Owner:

- Chief of Forensic Laboratory

Trigger Events:

- Lab reviews instrument run data and posts a final result for the test order.

Pre-Condition:

- Test Orders and specimens have been received by lab.

Post-Condition:

- Lab has generated all requested test results and posted them.

Use Case Flow:

1. Criminalist reviews lab testing raw data and determines if results are final.
   Note: Lab supervisor may need to approve test results and issue reports before they are released.
2. Criminalist posts final test results.
   a. The system shall allow staff to send final test results for each case.
      Note: Different sections may be sent before others, within a single case.
   b. The system shall interface with a LIMS to electronically receive test results (future requirements). In the short-term, the User shall be able to enter test results in the case management system and link to the case.
3. Criminalist confirms test results are posted.
   a. The system shall display test results for each test order.
   b. The integration of LIMS and case management system shall also provide a simplified view for Criminalists and DMEs who may want to view all results on a case-specific basis.

Alternate Flows:

- Tool mark analysis and other specialized processing within Lab

Cycle Time & Performance Metrics:

- Turnaround time by test order type
- Volume of cases awaiting results

Required Capabilities in Future State System:

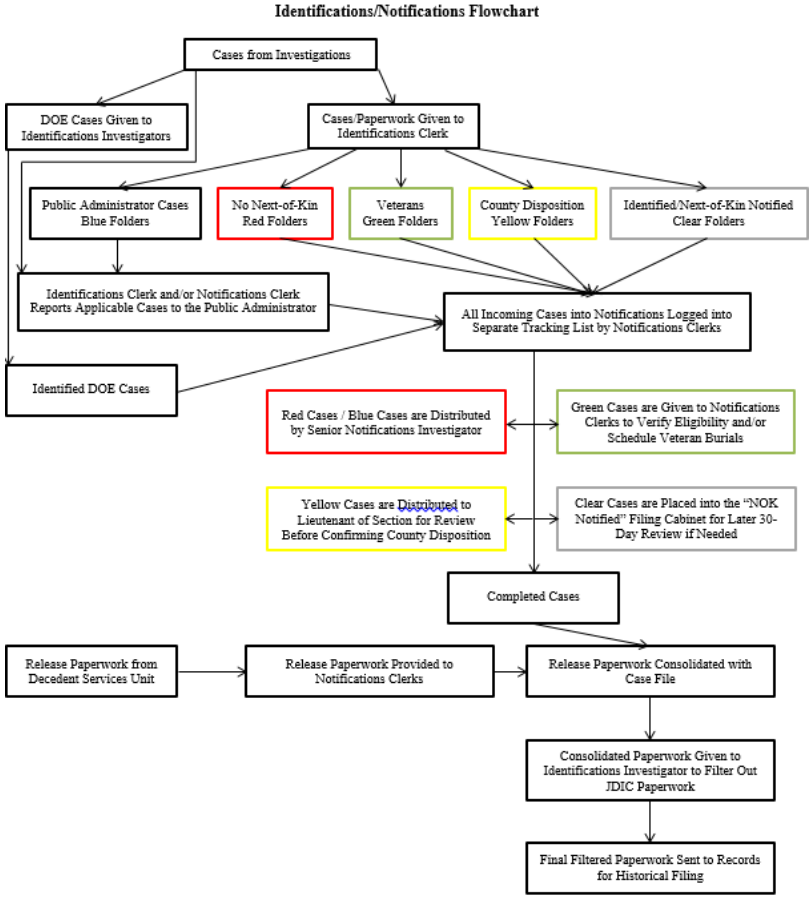
- The system shall track testing duration and projected time/date of results. This information shall be visible to all concerned parties (e.g. DME).
- The system shall notify DMEs when lab results are generated and released by lab staff.
- The system shall track work conducted (including volunteer hours).
- The system shall produce a report of the lab results for outside parties (e.g. LEA, courts).

8.0 Disposition, Release Planning & Release

This section covers use cases involving the Identifications and Notifications (IDNOT) team. There are several complicating factors that may impact the decedent's disposition /release. Specifically, a decedent may not be released until positive identification is established, Next-of-Kin (NOK) is identified and notified, and NOK makes arrangements for the decedent. Additional processing time may be required in cases where the Public Administrator must investigate the case for assets and the National Cemetery Scheduling Office must verify the decedent's eligibility to be buried at the Riverside National Cemetery.

The Identifications section manages unidentified decedents, or "DOE" cases, as in "Jane" or "John Doe". The Notifications section function is to find family (NOK) and notify of death in cases where handling Investigator has been unable to do so. Below, Figure 5 shows a high-level representation of steps for identification and notification. Note: The elements included in Figure 5 are not intended to represent a sequential process of identification and notification. Instead, this representation should reflect the process of a case floating through the IDNOT section.

Figure 5. Identifications /Notifications Flowchart



This section covers the following use cases:

Table 7. Disposition, Release Planning & Release Use Cases

Use Case # - Use Case Name	Description
8.0 Disposition, Release Planning & Release	
8.1 – Identification of DOE Cases	Identifications Investigators manage extended identification processes required for several types of DOE cases.
8.2 – Notifications	Notifications Investigators manage processes to identify and notify family/NOK.
8.3 – Track Decedents' Disposition	Notifications Clerks and sections Lieutenant manage disposition of decedents throughout post-autopsy/exam lifespan.

8.1 Identification of DOE Cases

Purpose & Objectives:

This use case captures the processes overseen by and connected to the Identifications Investigator responsible for due diligence required on unidentified, or "DOE" cases.

Actor/Role:

- Identifications Investigator
- Supporting Actor: Identifications Clerk

Process Owner:

- Lieutenant of Identifications and Notifications

Trigger Events:

- Decedent has not been positively identified in Preliminary Investigative Report. Investigation requires follow-up from Identifications section.

Pre-Condition:

- Investigator has performed his/her due diligence in attempting to secure positive identification but has not been successful.

Post-Condition:

- Decedent has been identified.

Use Case Flow:

1. Identifications Investigator takes ownership.
    a. The system shall provide capability to notify the Identifications section that a case is pending positive identification.
    b. The system shall provide capability for initial Investigator to record and communicate the reason that he/she could not establish identification. This information shall be visible to Identifications Investigator upon case follow-up.

   c. The system shall generate confirmation of case transfer to Identifications. Information captured in this confirmation shall include date/time of transfer and name of person to whom case is assigned.
   d. The system shall update the case record status after case transfer to Identifications.
2. Identifications Investigator conducts due diligence to secure positive identification. Identifications Investigator documents the various searches and results of his/her research.
   a. The system shall have the capability to record various search results in the process of identifying a DOE (e.g. Investigator's initial search, Identifications Investigator's extended search).
      Note: The current system records this information in case notes. The future state system shall provide the capability to record this information in a structured, specific location (e.g. "Identifications tab"). The collection of searches completed by initial Investigator shall be displayed in an obvious fashion to inform Identifications Investigator follow-up.
   b. The system shall support the tracking of Identifications cases by type.
   c. The system shall provide a simple display of case statuses within these tracking lists and generate alerts for necessary follow-up.
3. Upon completion of the research, Identifications Investigator updates the case with the findings.
   a. The system shall notify the Notifications Clerks and Notifications section that a decedent has been positively identified.
      Note: Sharing this update with Notifications is a critical trigger for Notifications follow-up to locate/notify family (in cases where family/NOK was not previously identified and notified, but forced to wait for positive identification before being able to make arrangements).
4. If NOK notification is still outstanding, then Notifications completes location/notification of NOK and Notifications Clerk consolidates complete Case File with release paperwork from DSU.
   a. The system shall support the consolidation of all information within the decedent case file.
5. Identifications Investigator reviews the consolidated Case File, in order to remove any sensitive JDIC paperwork that should not be released by Records.
6. Once the Identifications Investigator has removed all sensitive JDIC paperwork, the Case File is sent to Records.
   a. The system shall send/store final filtered paperwork for historical filing.

Alternate Flows:

- County Disposition ("Hard DOE"):
  - When a supervisor determines that a DOE case Identification Investigator has exhausted efforts to establish a positive identification, he/she may decide to initiate County Disposition.

Cycle Time & Performance Metrics:

- Turnaround time by case type
- Volume of cases awaiting identification
- Volume of cases awaiting County disposition
- Volume of cases awaiting Public Administrator disposition

Required Capabilities in Future State System:

- The system shall generate notice of “10-Day and Over” cases (and other cases requiring IDNOT review and/or action).
- The system shall support, update, and generate report capabilities for a Supervisor Master Tracking List.
- The system shall support notifications to the Public Administrator for applicable cases.
- The system shall support shared alerts between Identifications and Notifications sections, so that both sections are aware of the real-time status of a case.
- The system shall provide supervisor with birds-eye view of case statuses.
- The system shall provide the capability to track whether bone specimen has been sent to CA DOJ or DMEC lab for kinship analysis or DNA retention.
- The system shall provide the capability for field Investigators to mark a case for PA review, so that the Notifications Clerks can refer eligible cases to PA for follow-up.

8.2 Notifications

Purpose & Objectives:

This use case captures the processes overseen by and connected to the Notifications Investigator responsible for identifying and notifying the decedent's family/Next-of-Kin (NOK). As a point of clarification, DOE cases are not the only cases that may require NOK identification and notification. This use case may apply to cases with identified individuals.

Actor/Role:

- Notifications Investigator
- Supporting Actors: Section Lieutenant, Identifications Section Notifications Clerks
  Note: Although the Identifications Investigator is primarily focused on the positive identification of a decedent, he/she may also notify NOK once identification has been established.

Process Owner:

- Lieutenant of Identifications and Notifications

Trigger Events:

- Decedent has been positively identified, but the NOK has not been located or notified.

Pre-Condition:

- Investigator assigned to the case must have performed his/her due diligence in attempting to locate/notify the NOK, but has not been successful. Follow-up is required from Notifications section.

Post-Condition:

- NOK has been located and notified of death.

Use Case Flow:

1. Notifications Investigator takes ownership of case.
    a. The system shall provide capability to notify Notifications Investigator and associated supervisors of NOK cases requiring follow-up (pending location/notification of NOK).
    b. The system shall generate confirmation of case transfer to Notifications section.
    c. The system shall update the case record status after case transfer to IDNOT.
2. Notifications Investigator conducts due diligence to locate NOK contact information and notify NOK.
    a. The system shall have the capability to record various search results in the process of locating and notifying NOK (including Investigator's initial attempts to locate/notify NOK).
    Note: This information is currently stored in case notes. The future state system shall store this information in a structured, specific location (e.g. "Notifications tab") to clearly describe Investigator's initial attempts to locate/notify NOK and to inform Notifications follow-up.
    b. The system shall support the tracking of Notifications cases by type.
    c. The system shall provide a simple display of case statuses within these tracking lists and generate alerts for necessary follow-up.
3. Upon completion of the research (i.e. location of NOK), Notifications Investigator updates the case with the findings.
    a. The system shall notify the Notifications Section that NOK has been located.

4. Notifications Investigator notifies appropriate parties of decedent's death and property for release. He/she marks the case complete.
    a. The system shall allow staff to indicate that NOK have been notified of death.
    b. The system shall allow staff to indicate that NOK have been notified that the decedent is available for release.
5. Notifications Clerk consolidates complete case file with release paperwork from DSU.
    a. The system shall support the consolidation of all information within the decedent case file.
6. Identifications Investigator reviews the consolidated Case File, to remove any sensitive JDIC paperwork that should not be released by Records.
7. Once the Identifications Investigator has removed all sensitive JDIC paperwork, the Case File is sent to Records.
    a. The system shall send/store final filtered paperwork for historical filing.

Alternate Flows:

- County Disposition (pending Notification):
    - When a supervisor determines that a pending notification case Notification Investigator has exhausted efforts to locate/notify NOK, he/she may decide to initiate County Disposition.

- Notifications Clerk Makes Death Notification:
    - In some cases when family of a decedent calls into IDNOT inquiring about the death of a decedent, the Notifications Clerk who answers the call may be responsible for sharing the death notification. Otherwise, Notifications Investigators are responsible for handling death notifications.

- Decedent Identified, but NOK Never Identified (stuck in Notification):
    - "Red Folders" are tracked separately by Notifications Clerks and distributed by Senior Notifications Investigator.
        - The system shall track cases where decedent is identified but no know NOK are identified.
        - The system shall track cases where Next of Kin are identified but have not been notified of death.
        - The system shall alert staff of cases where NOK are not identified or not yet notified.
    - Exhaustive search is conducted (See Identifications-Notifications Guidelines – Next-of-Kin Search Fulfillment document).
        - The system shall track if investigators make updates to pending NOK identification or notification status until NOK are identified.

- Public Administration (PA) Case:
    - Once located and notified, NOK may not have enough money to make arrangements (i.e. pay for the release of decedent).
      Note: In these cases, the decedent's estate must have enough value for the PA to take from it and make arrangements.
    - Additional conditions under which a case may be referred to the Public Administrator's Office include, but are not limited to the following:
        - NOK is unknown, but the decedent's estate has sufficient assets to for the PA to make burial arrangements.

        - NOK is out of the country and/or desires to have the PA's assistance in handling arrangements/estate.
        - Decedent property is at risk of being damaged or stolen (PA must be immediately notified, if NOK is pending).
    - "Blue Folders" are tracked separately by Notifications Clerks and distributed by Senior Notifications Investigator.
        - The system shall allow staff to indicate the disposition of a decedent will be with the PA.

Cycle Time & Performance Metrics:

- Turnaround time by case type
- Volume of cases awaiting NOK notification
- Volume of cases pending arrangements 10 days and 30 days after NOK notification
- Volume of cases awaiting County disposition
- Volume of cases awaiting Public Administrator disposition

Required Capabilities in Future State System:

- The system shall notify the Supervising Investigator of the Notifications section when a body has been in DMEC care and NOK has been notified for more than 10 days. At this time, a 10-Day Letter shall be generated and sent to NOK to remind them to make arrangements. Once a body has been in DMEC care and NOK has been notified for more than 30 days, the Supervising Investigator and Notifications Clerks shall be notified, so that follow-up can be performed with NOK to determine why arrangements have not been made.
- The system shall support, update, and generate report capabilities for a Supervisor Master Tracking List.
- The system shall support notifications to the Public Administrator for applicable cases.
- The system shall support shared alerts between Identifications and Notifications sections, so that both sections are aware of the real-time status of a case.
- The system shall provide supervisor with birds-eye view of case statuses.
- The system shall provide the capability for field Investigators to mark a case for PA review, so that the Notifications Clerks can refer eligible cases to PA for follow-up.

8.3 Track Decedents' Disposition & Release

Purpose & Objectives:

Regardless of decedent process flow throughout DMEC, the case status and status of final disposition shall be tracked and managed by DMEC staff. This use case documents the process of tracking decedent disposition.

Actor/Role:

- Notifications Staff
- Supporting Actor: Lieutenant of Identifications and Notifications Sections, Notifications Clerks, Supervising Investigators, and Identifications Staff
  Note: Notifications Clerks and Supervising Investigators are primarily responsible for managing the status of case disposition. Notifications Investigators shall also perform these tasks, but current state case volumes inhibit bandwidth. As a result, Notifications Clerks and Supervising Investigators own these responsibilities. Additionally, Identifications personnel may be involved if they have already established contact with NOK and the decedent's release was waiting on positive identification (Case File will still be transferred through Notifications).

Process Owner:

- Chief of Operations

Trigger Events:

- Decedent has been positively identified and the NOK has been located/notified.
- Decedent has not been identified and thus there is no family/NOK to contact (See Alternate Flows for County Disposition, PA-Handling, and Indigent Veteran Burial).
- Decedent has been identified, but family/NOK is unable to make arrangements (See Alternate Flows for County Disposition, PA-Handling, or Indigent Veteran Burial)
- Decedent has been identified, but family/NOK is unwilling or has not made arrangements after 30 days from notification (See Alternate Flow for County Disposition).
- Decedent has been identified, but family/NOK requests Public Administrator (PA) assistance (PA handles disposition, if there are sufficient funds in decedent's estate).
- Decedent has been identified, but family/NOK has not been located/notified and the decedent has sufficient money in his/her estate to make arrangements (See Alternate Flow for PA-Handling).
- Decedent has been identified, but family/NOK has not been located/notified and the decedent was eligible for an indigent veteran's burial (See Alternate Flow for Indigent Veteran Burial).
- Decedent has been identified, family/NOK has been located/notified, insufficient funds to make arrangements, and decedent is confirmed as an eligible veteran (See Alternate Flow for Indigent Veteran Burial).

Pre-Condition:

- Decedent is in the custody of DMEC and has been identified as ready for release.
- Next of Kin (NOK) has been notified of death.

Post-Condition:

- Decedent has been released.

Use Case Flow:

1. Notifications Staff accepts decedent case for disposition. Identification has been confirmed by Investigator, along with notification of Next of Kin (NOK).
    a. The system shall designate identified decedents with identified NOK that have been notified of death and where the decedent is ready for release.
2. Notifications Staff confirm that NOK has identified a mortuary and is able to pay for release from DMEC.
    a. The system shall have the capability to connect payments received from the NOK to the CMS case record, as such payments are tracked and processed by Public Service staff.
    Note: The actual cash or check is provided to the accounting department for deposit and other accounting.
    Note: IDNOT does not handle payment processing. All payment checks are to be received through Public Services.
3. Notifications Staff confirm that release forms are complete, including a final photo of release and confirmation that there is no outstanding specimen missing from decedent (e.g. bone specimen sent to DOJ for analysis). DSU supervision must be engaged at this point. This ensures that the whole decedent/remains can be released.
    a. The system shall confirm there is no outstanding specimen needing to be release, before release, so how decedent is release (e.g. includes any bone specimen sent for analysis)
    b. The system shall allow staff to update cases with release information collected from party accepting decedent and final photo of decedent at release.
    c. The system shall record the DSU supervisor and /or any other DMEC involved in the release of the decedent per chain of custody tracking.
4. Mortuary staff arrives and picks-up decedent body on behalf of NOK.
    a. The system shall require that all cases have decent identification verified by the FA and FA Supervisor before decedent may be released.
    b. The system shall provide capability to verify and document mortuary staff and generate notifications (internal and external (e.g. NOK)) of decedent release.

Alternate Flows:

- Indigent Veteran Burial:
    - If decedent was a veteran without NOK, or a decedent whose NOK is unable/does not want to make private arrangements, then the decedent may qualify for an indigent veteran's burial at the RNC instead.
    - "Green Cases" are confirmed by Identifications Clerk and given to Notifications Clerks, who verify eligibility and/or schedule veteran burials.
    - The system shall allow staff to indicate cases for veteran burial.
    - See Identifications-Notifications Guidelines - Indigent Veteran Burials document.
    - Note: If the decedent is eligible to be buried at the RNC and the NOK desires County Cremation, then County Cremation will not be allowed, as the DMEC/LAC does not place indigent veterans through the County Disposition process.

- County Disposition (“Hard DOE”, pending Notification, or NOK unable to pay for release):
    - When a supervisor determines that a DOE case Identification Investigator has exhausted efforts to identify the decedent and/or a pending notification case Notification Investigator has exhausted efforts to locate/notify NOK he/she may decide to initiate County Disposition.
        - The system shall allow staff to update the disposition of a case to County Disposition.
    - Similarly, if the NOK is unable to pay for decedent release due to funding, County Disposition shall be offered.
        - The system shall provide the capability to generate County Disposition paperwork as an option from the case (paperwork already consisting of the decedent's pre-filled information and the case's pre-filled information).
        - The system shall support immediate mailing of generated paperwork to NOK to prevent any delays in releases.
    - IDNOT staff coordinate disposition and case record is updated to reflect final status.
        - The system shall allow staff to indicate decedent has been released to County Disposition.

- Decedent Identified, but NOK Never Identified (stuck in Notification):
    - After exhaustive search, IDNOT confirms disposition to Public Administrator (if decedent’s estate has enough assets to allow for PA to make arrangements) or County Disposition.

- Public Administration (PA) Handling:
    - Once located and notified, NOK may not have enough money to make arrangements (i.e. pay for the release of decedent).
      Note: In these cases, the decedent’s estate must have enough value for the PA to take from it and make arrangements.
    - Additional conditions under which a case may be referred to the Public Administrator’s Office include, but are not limited to the following:
        - NOK is unknown, but the decedent’s estate has sufficient assets to for the PA to make burial arrangements.
        - NOK is out of the country and/or desires to have the PA’s assistance in handling arrangements/estate.
        - Decedent property is at risk of being damaged or stolen (PA must be immediately notified, if NOK is pending).
    - “Blue Folders” are tracked separately by Notifications Clerks and distributed by Senior Notifications Investigator.
        - The system shall allow staff to indicate the disposition of a decedent will be with the PA.

Cycle Time & Performance Metrics:

- Volume of cases by disposition status
- Throughput by case type

Required Capabilities in Future State System:

- The system shall support the capability to track case status.

- The system shall provide Notifications Clerks and supervisors with the ability to track pending cases and it shall provide the capability to assign follow-up tasks for disposition.
- The system shall report on and display the data currently tracked in the Supervisor Master Tracking List and Body Reconciliation List (BRL).
- The system shall track the Crypt inventory including, but not be limited to the following fields:
    - Crypt #
    - Crypt space type (Regular, Heavy, Decomposed, etc.)
    - Case #
    - Notification Investigator
    - Notification Pending (status)
    - Received in Notification (status)
    - # Days Pending Notification
    - In Veteran Burial Process
    - In Public Administrator (PA) Process
    - Waiting on Next of Kin (NOK)
    - Ready Date
    - Current Date
    - # Days Ready
    - # Days since Legal NOK notified of death, so DMEC may determine when to send 10-Day Letter and when to consider cases for County Disposition (>30 days)
    - In Identifications
    - Investigation Status
    - Examination Status
- The system shall provide notifications when parameters of the crypt inventory approach and cross different thresholds, for example if the crypt is approaching full capacity, and number of decedents in different statuses like pending ID/NOT, ready for release /waiting on NOK, or no exam yet.
- The system shall provide the capability to indicate to Notifications section staff whether a decedent may be a veteran.
- The system shall provide the capability to reflect decedent name changes in real-time. For any name changes that occur through positive identification or updates, the most up-to-date full name must display throughout the system immediately. This will prevent decedent releases in error (especially in cases where decedents share a name).

9.0 Manage Public Requests

This section addresses use cases and requirements surrounding the interaction between DMEC and the public which it serves. While decedent case initiation and processing are covered in preceding use cases, this section addresses the variety of additional tasks which must be fulfilled by the department to fully serve the community.

This section covers the following use cases:

Table 8. Manage Public Requests Use Cases

Use Case # - Use Case Name	Description
9.0 Manage Public Requests	
9.1 – Perform Self-Service Inquiry	Members of the public contact DMEC with requests for public-facing services and frequently asked questions (beyond decedent report initiation).
9.2 – Manage External Request	DMEC staff manage a variety of incoming requests from the public (beyond decedent report initiation).
9.3 – Create Death Certificate	Certifications staff create an official copy of the Death Certificate upon request.

9.1 Perform Self-Service Inquiry

Purpose & Objectives:

DMEC provides a public facing website for residents to find answers to common questions and to serve as a common entry point for a variety of non-death reporting interactions.

This use case assists Los Angeles County residents in viewing assorted DMEC information and accessing website-enabled actions.

Actor/Role:

- Public Citizen

Process Owner:

- Chief of Public Services

Trigger Events:

- Public citizen requires service from DMEC and contacts DMEC.

Pre-Condition:

- DMEC staff contact information on the website is up-to-date and necessary DMEC staff are available to support requests.

Post-Condition:

- Inquiry has been resolved to satisfaction.
- The results of a self-service inquiry are displayed to the Public Citizen.

Use Case Flow:

1. The Public navigates to the DMEC public website (http://mec.lacounty.gov/) and explores its tabs to find desired inquiry listing.
    a. The system shall present a list of common services that may include but are not limited to:
        i. Case Search and basic information visibility
        ii. Transportation fee payment (payment services)
        iii. Property declaration
        iv. Tour inquiry
        v. Bloodborne pathogen testing education
        vi. Laboratory requests
        vii. Grief/bereavement resources
        viii. Death certificate education
        ix. Media and press release coordination
        x. Vendor registration
        xi. Employment inquiries (jobs/fellowships/internships/volunteers)
        xii. Additional billing services
        xiii. Coroner's gift shop
        xiv. Unidentified – Jane or Joe Doe (search for unidentified decedents)
        xv. Submit Public Records Request (like statistical information)
        xvi. Contact Us
            1. Email & Ask question
            2. Phone
            3. Forms

2. Public initiates an inquiry.
    a. The website shall direct the user in a logical path to his/her desired source of information and/or contact information.
        i. Email & Ask question
        ii. Phone
        iii. Forms
    b. The system shall send email confirmation to public user confirming service fulfillment.
    c. The system shall create/send email receipt of fees paid.

3. Public completes his/her request.
    a. The system shall generate a unique number for service request and type of document(s) ordered.
    b. The system shall allow staff to identify how many document types were requested, and how many copies were requested in each request.

Alternate Flows:

- Email Arrives from Public:
    - Initially, the email might not be directed to the appropriate staff member.
    - Admin Deputy Secretary reviews email to determine correct staff member to fulfill requests.

- Public arrives at DMEC Facilities In-Person, Checks-In at the Reception Desk at OAB:
    - Reception Desk staff records who arrives.
    - Public completes forms at Reception Desk.

        - Document Order Form
    - If Case is old (circa 1800s), then Reception Desk takes request and forwards it to Records.
        - Records researches Case File location and pulls the record.

- Record Is Unavailable (i.e. “Deferred” status):
    - Reception Desk staff will let Public know that the report is not available because it is deferred. The Public has an option to pay first, or to wait for record to exit deferred status prior to payment.

- Public requests report on number of security hold cases
    - The system shall allow staff to identify the number of cases on security hold.
    - The system shall notify staff if a case is on security hold and limit information that is provided publicly.

Cycle Time & Performance Metrics:

- Metrics enabled by modern call center technology (e.g. hold times, dropped calls, call/service time)
    - Including for Records, Property, and Certifications
- Volume of inquiries by channel
- Website performance metrics
- Number of people inquiring in-person
- Number of Document Orders, when completed, and by whom completed
- Report of outstanding Public Requests (10 business days)
- Age of Security Hold Cases

Required Capabilities in Future State System:

- The system shall include modern call center technology wherever the Public may direct their phone calls.
- The system shall produce printer-friendly pages of inquiry results for Public to be able to print a well-formatted document.
- The system shall have data persist from one screen to another when data fields are the same so the user does not have to repeat data input on multiple screens (search inquiries).
- Directed email inquiries are hyperlinked on the public site.
- Any follow-up calls on the same case/service request shall be associated to the initial service request identifier.
- The system shall generate reports to support billing (i.e. report of cases requiring billing).
- The system shall support credit card payments. The payment module must meet industry security and privacy standards.
- The system shall record all requests for future analysis.
- The web application should, where possible, integrate to the case management system and system of records to eliminate the need for manual updates to data feeds.

9.2 Manage External Request

Purpose & Objectives:

Any call that is not reporting a death and any requests from outside of DMEC are managed by DMEC staff to fulfill a variety of departmental responsibilities and public services. Division desks with phone lines that may be reached by an external request include, but are not limited to the following:

- Main Line
- Subpoena
- Certifications
- Records
- Property
- Billing
- Gift Shop
- PIO
- Law Enforcement Desk

Actor/Role:

- Public Services Staff

Process Owner:

- Chief of Public Services

Trigger Events: (reconcile with self- service inquiry use case)

- Case search and information request (including request for Public Information Officer (PIO)), including various data requests (i.e. tabular [Excel] files)
- Request for records (death certificate, case file)
- Request for decedent status (ready for release)
- Search for unidentified decedents (DOEs)
- Property declaration
- Request for evidence
- Transportation fee payment
- Public records request (e.g. statistical information)
- Additional billing services call
- Educational outreach call
- Tour inquiry
- Bloodborne pathogen testing education call
- Laboratory request
- Grief/bereavement resources inquiry
- Death certificate educational inquiry
- Media and press release inquiry
- Vendor registration call
- Employment inquiry (jobs, fellowships, internships, and volunteers)
- LEA request for update
- Gift shop inquiry
- Mortuary requests DMEC complete death certificate
    - Document requests: Case files, autopsy reports, Port of Entry, Proof Death Letter
- Contact Us inquiry (email, online form, and phone)

Pre-Condition:

- Public Services staff are available and accessible from any reception area within DMEC (phone or in-person).
- OR as appropriate, Public Information Officer is available

Post-Condition:

- External request has been satisfied and/or external party has received instruction on remaining steps of his/her desired sequence of events.
- System creates a case log for every incoming request.

Use Case Flow:

1. Public Services staff receives a phone call request from a public party (non-death reporting). The phone call is transferred to appropriate Staff to fulfill Public's request.
    a. Incoming request categorization and transfer protocol are established to direct all incoming communications to the appropriate desk within DMEC.

2. Staff answers the phone and logs caller's name and relation to the decedent, if applicable.
    a. The system shall provide visibility—with necessary permissions in place—to any relevant case information related to the caller.
        i. Note: The system must have the capability to protect access to sensitive information to authorized staff either by roles or rule.
    b. Process flows are defined and visible, automatically prompted for Public Services staff based on specific trigger event.
    c. The system shall automatically generate request log (e.g. name of caller, time of call / time request was received, type of request, DMEC staff assigned, call duration).

3. Public Services mails out letter based on phone call request. Staff identifies service and associated fee to be collected.
    a. The system shall allow staff to generate letter with service request information, and fee to be paid (bill stub), with instructions on how to pay fee.
    b. The system shall allow staff to record date the Fee Letter was sent to requestor.
    c. The system shall record which staff member handled the request.
    d. The system shall allow Public to pay service bill online.
    e. The system shall allow staff to record payment received via USPS.

4. Public Services obtains the document (e.g. autopsy report, etc.) and sends it out to requestor.
    a. The system shall allow staff to record that the document was sent out and service request has been fulfilled.
    b. The system shall record date document was sent out.

Alternate Flows:

- DMEC staff may be able to provide information over the phone that satisfies the caller's request.
- Requests are Received Via Email, USPS, Fax:
    - The system shall generate a notification to the receiving party within DMEC.

    - Like the use case flow of phone call requests, the system shall facilitate transfer of case—retaining preferred method of communication—to the appropriate division contact.

- Document orders/credit cards cannot be taken over the phone.
    - Note: This is covered above – Fee Letter is sent out.
- Call to Main Line when Call Is Reporting a Death:
- Main Line (0512), transfers call to Reporting Desk.
  Call to Reporting Desk when Call Meant for Main Line (or anyone within department):
    - The call gets transferred to the appropriate division/section.
- Reception Desk Finds Loved One:
    - The system shall provide searchable, relevant case information. Upon confirmation, the RD staff shall transfer the call to the acting Investigator.
- After Hours Call to Main Line:
    - The system shall automatically redirect calls to the Reporting Desk/Watch Commander. RD staff will log Public Service requests.
    - Watch Commander may transfer call to appropriate division/section for caller to leave voicemail.
- Request Received In-Person at DMEC:
    - See Alternate Flow of Public Self-Service Inquiry.
- Public Services Needs to Extract Documents for Release:
    - The system shall display case file forms and information electronically.
    - The system shall identify publicly available information for release.
    - The system shall identify information available for release under a subpoena.
    - The system shall allow staff to select forms from the case file to print.
    - Staff identifies forms to print.
        - The system shall generate case file formatted for printing.
- PIO:
    - Note: PIO is not in Public Services. A call that goes to PIO will trigger PIO to request records from Records desk.

Cycle Time & Performance Metrics:

- Service times across request categories
- Number of Document Orders, when completes, and who completes,
- Report of outstanding Public Requests (10 business days)

Required Capabilities in Future State System:

- Request log
- The system shall have Alerts and Tasks lists on outstanding service request lists/pending items, task lists (i.e. dashboard alert).
    - Alert division/section assigned to fulfill request (versus specific staff assigned).
- The system shall allow service request to transfer service request assignment to a different staff member and notify supervisor.
- Public Service can see case status information including, but not limited to:
    - Legal NOK
    - Autopsy complete (Y/N)
    - Body ready for release (Y/N)
- Reporting
- Case file is available electronical and formatted for print.
- Redaction

- Watermarking
- PIO has capability of saving URL's or text of news stories within the case

9.3 Create Death Certificate

Purpose & Objectives:

DMEC staff receives requests for official death certificates from mortuary staff on behalf of families. DMEC information is added to the decedent's record in the California Electronic Death Registration System (CA-EDRS or "EDRS") to create a "working copy" that can then be shared with the health department. This contribution by DMEC staff allows the family to bury the body of the decedent. EDRS is the dedicated state system for "electronic death certificate origination and registration".

Actor/Role:

- Certifications staff

Process Owner:

- Chief of Public Services

Trigger Events:

- Mortuary emails Certifications inbox with decedent's name, case number, and EDRS number.

Pre-Condition:

- Decedent's family or representative has an assigned mortuary.
- Mortuary has started death certificate by entering personal information (PII) about decedent in EDRS.
- EDRS number exists for decedent.

Post-Condition:

- Official death certificate ("working copy") has been created and made available for requesting party.
- System contains updated record of information and request history.
- Case information, including cause of death, is collected and entered into EDRS.

Use Case Flow:

1. Certifications staff receives a request for death certificate from mortuary staff, and researches DMEC case number.
    a. The system shall allow staff to search DMEC case number and view information (e.g. decedent's PII, cause of death has been determined)
    b. The system shall display case file information – see Form 15 – Medical Report pink copy, Form 1 – Investigative Report for information.
    c. The system shall track the request for death certificate.
2. Certifications staff enters EDRS number into EDRS system and identifies decedent case record.
    a. Once identified, the system shall allow staff to add an EDRS case number as part of the DMEC case file.
3. Certifications staff views death certificate information previously entered by mortuary.
    a. EDRS shall display current death certificate information.

4. Certifications staff confirms necessary source information and enters information into EDRS (date, time of death, cause of death, Boxes 7 & 8 then down to Box 101).
    a. EDRS shall record updated information from DMEC.
5. Certificates staff updates the date of death on the EDRS case record.
    a. Note: EDRS requires a date of death for mortuaries to start a death certificate. DMEC Certifications staff will be trained to regularly update this field as necessary to more accurately reflect decedent's date of death based on case notes.
6. Certificates staff processes case information into EDRS.
    a. EDRS shall perform completeness validation, auto-save, spellcheck, and input validation.
7. Certificates staff accepts certificate, attests to medical info, and prints an updated working copy from EDRS.
    a. The system shall update EDRS record and memorialize document information at time of print.
    b. The system shall identify who completed EDRS record and when it was completed.
8. Certification staff notifies mortuary that the EDRS record has been completed (e.g. via email).
    a. The system shall present this contact information as part of the Certifications view of the DMEC case record.
9. Certifications staff indicates that death certificate has been completed.
    a. The system shall allow staff to indicate death certificate has been completed in EDRS.

Alternate Flows:

- Multiple EDRS Numbers for Single Decedent:
    - For example, if decedent passes at Harbor (LAC hospital), then Harbor creates an EDRS record—even though receiving mortuary may also create an EDRS number. This incidence of multiple EDRS numbers is not unique to Harbor.
    - If two EDRS numbers exist for a single decedent, then Certifications staff will use the decedent's name to pull up the correct EDRS record.

- Info from Mortuary Does Not Match DMEC Info (e.g. name mismatch):
    - Certification staff will contact mortuary.
        - Mortuary may update death certificate information.

- Case Is in "Deferred" Status (e.g. DOEs):
    - Certification staff will let mortuary staff know that case is deferred and reason for "deferred" status:
        - Cause of death is deferred, but decedent's identity is known.
            - Certifications enters "deferred" cause of death into EDRS, allowing the Registrar to issue the death certificate as deferred.
            - An amendment must be issued later when the cause of death is determined.
        - Decedent's identity is not known.
            - Identifications may issue a certificate for John or Jane Doe so the decedent can go to County Disposition (cremation).

    - Certifications staff will update EDRS record with deferred cause (death certificate will not be issued).

- Body Is Not Ready for Release:
    - DMEC will not create a death certificate. DMEC waits until final mortuary is identified so that multiple EDRS records are not created.

- “Indigent” cases that do not get claimed are transferred to Notifications department.

Write Amended Cause and Supplementary Medical Report:

- This happens on occasion, but more likely is that cause of death was “deferred” and becomes determined later.
- When a DME updates cause of death in DMEC system, the system shall notify Certifications staff of an updated Cause of Death to be propagated to EDRS.

Cycle Time & Performance Metrics:

- Response time

Required Capabilities in Future State System:

- The system shall support information stored on Form 15 and Form 1 (or equivalent).
- The system shall allow staff to record case notes (i.e. regarding mortuary).
- The system shall track which mortuaries receive decedents.
- The system shall interface directly with the State death certificate system (EDRS), avoiding multiple entries of the death certificate information.

10. List of Improvement Opportunities

To expand upon items listed in Section 1.2 (#1-5 below), the following improvement opportunities were generated from DMEC workshop discussions and executive leadership input.

1. Improve Reporting Desk processes to capture additional information to better position Investigators to determine jurisdiction, improve dispatch time, and reduce Non-Jurisdiction Cases.
2. Improve customer (Next of Kin; hospital staff) satisfaction and NAME compliance by establishing a new process for hospital pick-up ("Bedside Pick-Up").
3. Reduce backlog build-up and improve NAME compliance by increasing weekend staffing levels (Staff to 90th Percentile).
4. Improve time from arrival at DMEC to exam completion by changing the decedent preparation processes and reducing unnecessary movements into and out of the crypt (View Intake/Prep/Exam as Manufacturing).
5. Reduce time from pickup to start of examination by streamlining the report requirements (preliminary vs. final report).
6. Improve lab efficiency by automating manual processes. For example, several instances of manual input are currently required to pass case data between laboratory equipment and the Access database. By integrating systems (case management system and Laboratory Information Management System (LIMS)), the associated delays and potential for human error can be reduced.
7. Establish a single system of record for case accuracy and visibility across business units (ex: single, electronic evidence report).
8. Improve Reporting Desk technology, by introducing modern call center technology. The introduction of a Provision modern PBX (Private Branch Exchange)/ACD (Automatic Call Distribution) system with industry statistics will empower DMEC to intelligently staff the Reporting Desk and analyze incoming communication data.
9. Collect medical records at time of hospital pick-up to streamline case management between decedent retrieval and medical assessment and autopsy/exam.
10. Update evidence log to improve front-end processing for exams. As mentioned above, an electronic evidence log may deliver valuable, shared access to multiple parties who rely on the document for their associated processes. In addition to the digitization, DMEC may consider improved workflows around the evidence log to ensure their availability in a shorter time frame. Delays spent "searching for the evidence log" should be targeted and reduced.
11. Proactively handle Law Enforcement Agency (LEA) courtesy calls to reduce delays. By establishing a standard time for LEA-associated autopsy/exam starts, interested agents may coordinate their own schedules to assess decedents on-site at DMEC (pre-autopsy/exam). As a result, DMEC medical staff will no longer hold decedents for a two-hour courtesy window on a case-by-case basis.
12. Utilize Forensic Technicians (FTs) in labeling and "collection" of autopsy specimens (scanning in specimens that have been collected and labelled). This responsibility shift in autopsy/exams should reduce post-exam delays as well as confusion and errors arising from unlabeled specimens.
13. Investigate opportunities for a mobile workforce. Develop use cases to explore advantages and limitations for staff and how mobile access impacts case management. Based on the findings, explore types of device options for access.