



Development of an Informatics Application: Death Investigation Electronic Record

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Purpose

The purpose of developing the Clinical Informatics (CI) application, known as DIER (Death Investigation Electronic Record), was established to address the lack of electronic records presently available within this forensic specialty.

A universal, synchronized database of critical information that has been collected during a death investigation has the potential to greatly impact the general public as a whole.

Access to real time data helps to improve the response time to identified trends among such data. While also influencing the allocation of appropriate resources associated with the interventions that are implemented.

DIER would be the only database of its kind on the market in this forensic field.

DIER

2:15B
General Death Scene Invest... Submit

Cemographics: Decedent, Coroner/ Death Investigator Information

Case Number/Decendent Name
enter here

Date/Time of call:
enter here

Coroner/Deputy/Investigator:
enter here

Department:
enter here

Phone:
enter here

Date/Time of arrival on the scene:
enter here

Called by: (usually dispatch)
enter here

Agency/Agencies on the scene:
enter here

1. Name & Title:
enter here

Index Verify

Functions within the application:

- Checklist to 'Secure the Crime Scene'
- Unique 'Case Number' assigned for each entry.
- Currently 24 different causes of death forms, with the planned expansion.
- Crime scene sketch options
- Injury sketch options
- Photo capabilities
- Synchronization from mobile device to computer database

Planned Advancements:

- Supplemental security features
- In field fingerprint identification capabilities
- Unique, geographic specific format
- Cross application communication between different offices such as local hospitals & laboratories.
- Federal acquisition for national implementation.

Background

- The first Electronic Medical Records (EMR) were developed in the 1960's to track and analyze obtained data by manually entering it into the database.
- The first commercially available EMR was developed in the mid 1960's.
- This was groundbreaking due to the ability for multiple people to have simultaneous access.
- The federal law of American Recovery and Reinvestment Act (ARRA) was made in 2009, with a major component being The Health Information Technology for Economic and Clinical Health (HITECH).
 - HITECH set a goal of every US citizen having a healthcare record by 2014; as of 2016, 96% of this goal has been achieved.
- The Medicaid & Medicare reimbursement rates helps to provide an incentive for compliance with EMR utilization.
- Despite these advances, there is presently no universal, synchronized electronic database for Death Investigation.

Collaboration & Development

Members involved in the collaboration & development of DIER:

- Founding members of the DIER team: Michael Gigia & Shaunna DeLorie
- Informatics Technology Company Louis D. Richards Information Technologies (LDRIT)
- Jessamine County Coroner's Office

Through the collaborative efforts of this team, the establishment of an effective framework for this application was finalized and the operational beta version was created.

Through the review of the applications implementation within the local community, update and advancement suggestions will continue to be evaluated and applied.

Relevance to Forensic Nursing

- One role a forensic nurse can function as is that of a Death Investigator.
 - DIER was developed with the intended utilization within the forensic specialty of death investigation.
- Thorough and accurate documentation is a critical component within the nursing profession as a whole.
 - DIER is designed to enable effective and efficient documentation, for data collection, throughout the cause of death investigation.
- The continuous growth of the nursing profession is reflected in the planned continuous adaptations and updates within this application.
- The Scope of Practice for forensic nursing is to provide holistic care to the impacted individuals within the population.
 - The goal of national implementation through the federal government provides a holistic approach, positively impacting the influence of interventions implemented on the public.

Conclusion

The development of the CI application DIER will provide the first available universal, synchronized database the forensic field of Death Investigation.

This application will receive continuous updates and advancements throughout its existence. This progressive development ensures the utilization of the various technological advancements that occur with time.

The review process for the beta version of DIER will take approximately 6 months before marketing will begin. This timeframe will enable a thorough review process of the operation to identify any adjustments required in the programing.

Once accomplished, the application will be implemented locally to determine the degree of impact this invention has within the DI specialty.

The long term goal for DIER will be to utilize this verification from local utilization to justify the recommended federal acquisition for national implementation.

