Test Plan Summary

Vital Records Death Reporting

Test Case Group: Provider Supplied Death Information Group

This use case examines the ability of an EHR to create an ADT messages for delivery? of relevant clinical information to the Electronic Death Registration System (EDRS).

Test Case	VR-1 Death at Home

Description:

Sending death information from the provider for a death that occurred at home.

Test Steps

	Description:
	On November 2, 2010, upon arriving at his home, John Smith found his wife, Madelyn Smith, lying on the couch unconscious and not breathing. He quickly called 9-1-1 and started cardiopulmonary resuscitation (CPR). Within ten minutes, the paramedics arrived at the scene. They transported Madelyn to the Emergency Room at the Llewellyn Hospital in Rosemont, NC where Dr. Tom Delaney examined Madelyn and pronounced her dead on arrival at 1400. He spoke to Madelyn's husband John and learned that the couple had just returned from a trip overseas and that Madelyn had a 40 year history of lupus. Dr. Delaney started an electronic health record for Madelyn and populated the patient death indicator with a "Y" to confirm her death, along with his full name and his NPI number. Meanwhile, a nurse collected and entered basic identifying information, including patient name, birth date, sex, address, zip code, and social security. The case was referred to the medical examiner's office for an autopsy and Dr. Delaney noted Madelyn's history of lupus and recent overseas travel in his referral note.
Report_PSDI_A04_V1.0	The Medical Examiner (ME), Dr. Revel, assigned a case ID and conducted the autopsy. After speaking to Madelyn's husband, Dr. Revel consulted the referral notes and he immediately suspected that a blood clot might have formed in one of Madelyn's legs during her recent overseas flight. He notes Madelyn's 40 year history of lupus, which is a risk factor for developing deep vein thrombosis. The autopsy results revealed that Madelyn's immediate cause of death was a pulmonary embolism which resulted from deep vein thrombosis. He entered the estimated date and time of death, the immediate cause of death as well contributing conditions, and the underlying cause He also entered the code which indicated that the autopsy results were available for the decedent and entered all information required to identify the death certifier. Finally, the ME signed Madelyn Smith's death certificate which completed the data entry for this decedent and the all information related to filing the death certificate is transmitted via an ADT^A04 message from the EHR to the jurisdictional vital records office.
	Test Objectives:
	The message must provide: Patient demographic information in the PID segment to provide basic demographics to allow identification of the person and matching of the record with information from the funeral director as well as death reporting observations in the OBX Observation/Result segments and further information on the patient death and possible autopsy in the PDA segment. The test case provides an example of relevant elements of recording the death of a patient, and of collecting the information needed to support filing a death certificate.

	Support for Date/Time of Birth
	Support for Death Location
	Support for Autopsy Indicator
	Support for Coroner Indicator
	Support for Observation Value
	Support for Death Certificate Signed Date/Time
	Support for Death Certified By
	Support for Coroner - Medical Examiner Case Number
	Support for Death Certifier Address
	Support for Death Certifier Type
	Support for Did death involve any injury of any kind
	Support for Did Tobacco use contribute to death
	Support for Disease onset to death interval
	Support for Manner of Death
	Support for Part\Line Number
	Support for Referral Note
Revise_PSDI_A08_V1.0	**Description:** **After Madelyn's death was reported to the jurisdictional vital records office via an A04 message from the EHR, a nurse at Llewellyn Hospital realized that Madelyn's first name had been entered incorrectly into the hospital's EHR as "Madeline." The nurse updates the decedent's first name in the medical record with the correct spelling. The updated record for Madelyn Smith is transmitted via an ADT^A08 message from the EHR to the jurisdictional vital records office.** **Test Objectives:** This test case examines the ability of an EHR to create an ADT A08 message for revising of relevant clinical information to the Electronic Death Registration System (EDRS). Support for revised patient name.
Cancel_PSDI_A11_V1.0	**Description:** **Several days after transmission of updated information, it was discovered that Madeline was not actually the proper name for Ms. Smith, and that an electronic report had been previously sent using her correct name which was Josephine Madeline Smith. It becomes necessary to send a retraction of the previous report. The cancellation record for Madeline Smith is transmitted via an ADT^A11 message from the EHR to the jurisdictional vital records office.** **Test Objectives:**

This test case examines the ability of an EHR to create an ADT A11 message for cancellation of relevant clinical information to the Electronic Death Registration System (EDRS).

Test Case	VR-1 Death caused byTransportation Injury at work

Description:

Sending death information from the provider for a death that occurred at home.

	Test Steps

Description:

While driving to work on October 5, 2010 at 0800am, Javier Luis Perez, lost control of his vehicle near 921 Automobile Blvd in Silver Spring, MD and crashed into several other vehicles. He sustained head and neck injuries and lacerations to his face. Witnesses on the scene called 9-1-1 and reported that Javier suddenly began driving erratically.

He was taken by ambulance to Memorial hospital where Dr. Samuel Spade performed emergency surgery. Unfortunately, the surgery was not successful and Dr. Spade pronounced him dead at October 5, 2010 at 11:25am. A nurse started an EHR and entered basic identifying information, including the patient's name, his birth date, sex, home address (including Country and County of residence) and social security number. Dr. Spade added his own details as the death pronouncer, including his name and provider NPI.

Mr. Perez's medical record indicated that he had a twenty year history of Epilepsy. Dr. Spade suspected that Javier had suffered a seizure while he was driving that morning, causing him to lose control of his vehicle. The doctor completed the cause of death section of the death certificate and included "Blunt head trauma" on line 1a and "Auto accident" on line 1b. He added "Epilepsy" to line 1c because he was of the opinion that this was the underlying cause of death. He indicated that the death was associated with a transportation event and that Javier was the driver. He also entered "Cerebrovascular Accident" as a significant condition related to the cause of death.

Dr. Spade entered the injury location and the death location and entered the date and time and location at which the injury occurred, as well as the date and time that he signed the death certificate. He also entered the manner of death was an accident and noted that Javier was a non-smoker and that the death did not result from an injury at work. He also noted that no autopsy results were available for this decedent. Finally, he noted his own identifying information as the death certifier and noted the death certifier type as a "Physician certified death certificate". All information related to filing the death certificate is transmitted via an ADT^A04 message from the EHR to the jurisdictional vital records office.

Report_PSDI_A04_V1.0

Test Objectives:

The message must provide: Patient demographic information in the PID segment to provide basic demographics to allow identification of the person and matching of the record with information from the funeral director as well as death reporting observations in the OBX Observation/Result segments and further information on the patient death and possible autopsy in the PDA segment. The test case provides an example of relevant elements of recording the death of a patient, and of collecting the information needed to support filing a death certificate.

Support for Date/Time of Birth
Support for Death Location
Support for Autopsy Indicator
Support for Coroner Indicator
Support for Observation Value

	Support for Death Certificate Signed Date/Time
	Support for Death Certified By
	Support for Death Certifier Type
	Support for Death Cause Other Significant Conditions
	Support for Death Pronouncer Details
	Support for Did death involve any injury of any kind
	Support for Did Tobacco use contribute to death
	Support for Disease onset to death interval
	Support for Manner of Death
	Support for Part\Line Number
	Support for Street Address where death occurred if not facility
Revise_PSDI_A08_V1.0	**Description:** **After Javiers death was reported to the jurisdictional vital records office via an A04 message from the EHR, an update is made to correct the decedent's street address in his hospital medical record from 143 Taylor Street to 14355 Taylor Street. The updated record is transmitted via an ADT^A08 message from the EHR to the jurisdictional vital records office.** **Test Objectives:** This test case examines the ability of an EHR to create an ADT A08 message for revising of relevant clinical information to the Electronic Death Registration System (EDRS). Support for revised decedent's street address.
Cancel_PSDI_A11_V1.0	**Description:** **Several days after transmission of updated information, it was discovered that a more complete medical record exists for Javier under a different SSN. It becomes necessary to send a retraction of the previous report. The cancellation record for Javier Smith is transmitted via an ADT^A11 message from the EHR to the jurisdictional vital records office.**

Test Case	VR-1 Death of a Pregnant Woman

Description:

Sending death information from the provider for a death that occurred at home.

Test Steps	

	Description:
	On the night of January 22, 2003, in Concord, New Hampshire, Sarah Wright and her pregnant daughter Vivienne Wright were at their home watching television when Vivienne suddenly started having convulsions. Sarah immediately called 9-1-1 and the paramedics arrived at the home. They found Vivienne in respiratory failure. Vivienne was rushed to the hospital. When they arrived, a group of emergency room staff, including Vivienne's obstetrician, were unable to resuscitate Vivienne and pronounced her dead at 2100. Vivienne's obstetrician accessed her EHR which was populated with Vivienne's basic identifying information including her name, birth date, sex, address, zip code, and social security number. Vivienne had been treated for preeclampsia during her pregnancy and this seemed the most likely cause of death; however her doctor indicated that he wanted an autopsy to be performed and added a referral note. The pathologist/medical examiner, performed an autopsy on January 23rd. He noted in the EHR that Vivienne was pregnant at the time of her death. He noted pulmonary edema and other blood protein and urine results that pointed to eclampsia as the underlying cause of death, although he listed "Cardiopulmonary arrest" as the immediate cause and entered the duration.
Report_PSDI_A04_V1.0	He listed "Eclampsia" as the underlying cause of death with a separate duration. He entered his identifying information as the death certifier, signed the death certificate and indicated that the autopsy results were available. At that point, all information related to filing the death certificate is transmitted via an ADT^A04 message from the EHR to the jurisdictional vital records office.
	Test Objectives:
	The message must provide: Patient demographic information in the PID segment to provide basic demographics to allow identification of the person and matching of the record with information from the funeral director as well as death reporting observations in the OBX Observation/Result segments and further information on the patient death and possible autopsy in the PDA segment. The test case provides an example of relevant elements of recording the death of a patient, and of collecting the

	information needed to support filing a death certificate.
	Support for Date/Time of Birth
	Support for Death Location
	Support for Autopsy Indicator
	Support for Coroner Indicator
	Support for Observation Value
	Support for Death Certificate Signed Date/Time
	Support for Death Certified By
	Support for Coroner - Medical Examiner Case Number
	Support for Death Certifier Type
	Support for Did death involve any injury of any kind
	Support for Did Tobacco use contribute to death
	Support for Disease onset to death interval
	Support for Part\Line Number
	Support for Referral Note
Revise_PSDI_A08_V1.0	**Description:** After Vivienne's death was reported to the jurisdictional vital records office via an A04 message from the EHR, an update is made to correct the decedent's birth date in her hospital medical record from "1984" to June 6, 1984. The value for the decedent's age at death was updated in the medical record as well. The updated record is transmitted via an ADT^A08 message from the EHR to the jurisdictional vital records office. **Test Objectives:** This test case examines the ability of an EHR to create an ADT A08 message for revising of relevant clinical information to the Electronic Death Registration System (EDRS). Support for revised Date/Time of Birth Support for Age at Death Support for Units
Cancel_PSDI_A11_V1.0	**Description:** Several days after transmission of updated information, it was discovered that a more complete medical record exists for Vivienne under a different SSN. It becomes necessary to send a retraction of the previous report. The cancellation record for Vivienne Wright is transmitted via an ADT^A11 message from the EHR to the jurisdictional vital records office.

	Test Objectives:
	~~This test case examines the ability of an EHR to create an ADT A11 message for cancellation of relevant~~ clinical information to the Electronic Death Registration System (EDRS).

Test Case Group: Jurisdictional Death Information Group

This use case examines the ability of a jurisdictional EDRS to create an ADT message for delivery? of relevant clinical information to the National Center for Health Statistics (NCHS).

Test Case	VR-1 Death at Home

Description:
Sending death information from the provider for a death that occurred at home.

Test Steps	
Report_JDI_A04_V1.0	**Description:** **Madeline Smith's death certificate has been created in the jurisdictional vital records electronic death registration system (EDRS) and is populated with the information previously entered by the medical examiner in the EHR. The medical examiner has now attested the death using an approved method and the record is in the EDRS system. The EDRS death record is accessed by the funeral home which then completes their portion of the death certificate. The funeral director interviews Madeline's family and adds some demographic information in the EDRS, such as the decedent's race, marital status and ethnic group. He sets the sex edit flag in the EDRS to indicate that this edit had passed verification. He also sets the source flag to indicate that the decedent's information was originally collected in electronic mode. Madeline's husband brought her birth certificate and the funeral director uses this document to enter her Birth certificate data year, birth certificate ID and birth place into the EDRS. He also enters Madeline's level of education. The completed record is then submitted for registration. Once the jurisdictional vital records office registers the death, the death certificate is considered complete. At this time, a HL7 ADT^A04 message containing cause of death literal and demographic information is sent electronically to the national statistical agency.** **Test Objectives:** The message must provide: Patient demographic information in the PID segment to provide basic demographics to allow identification of the person and matching of the record with information from the funeral director as well as death reporting observations in the OBX Observation/Result segments and further information on the patient death and possible autopsy in the PDA segment. The test case provides an example of relevant elements of recording the death of a patient, and of collecting the information needed to support filing a death certificate. Support for Date/Time of Birth Support for Death Location Support for Autopsy Indicator Support for Coroner Indicator Support for Observation Value

	Support for Death Certificate Signed Date/Time Support for Death Certified By Support for Coroner - Medical Examiner Case Number Support for Death Certifier Address Support for Death Certifier Type Support for Did death involve any injury of any kind Support for Did Tobacco use contribute to death Support for Disease onset to death interval Support for Manner of Death Support for Part\Line Number Support for Referral Note Support for Race Support for Ethnic Group Support for Marital Status Support for Birth certificate data year Support for Birth certificate ID Support for Birth place Support for Decedent Education Level Support for Education Edit Flag Support for Marital Status Edit Flag Support for Sex Edit Flag Support for Source Flag
Revise_JDI_A08_V1.0	**Description:** **After Madeline's death was reported to the national statistical agency via an A04 message from the EHR, the funeral director realizes that he incorrectly entered Madeline's level of education in the jurisdictional EDRS.** **He corrects the decedent's level of education in the EDRS and sets the education edit flag in the EDRS to indicate that the decedent's education level has been verified. The updated record for Madeline Smith is transmitted via an ADT^A08 message from the EDRS to the national statistical agency.** **Test Objectives:** This test case examines the ability of an EHR to create an ADT A08 message for revising of relevant clinical information to the Electronic Death Registration System (EDRS). Support for revised patient name.
Cancel_JDI_A11_V1.0	**Description:** **Several days after transmission of updated information, it becomes necessary to send a retraction of the previous report. The cancellation record for Madeline Smith is transmitted via an ADT^A11 message from the EDRS to the national statistical agency.**

Test Objectives:
This test case examines the ability of an EHR to create an ADT A11 message for cancellation of relevant clinical information to the Electronic Death Registration System (EDRS).

Test Case	VR-1 Death caused byTransportation Injury at work

Description:

Sending death information from the provider for a death that occurred at home.

Test Steps

	Description:
	Javier Perez's death certificate has been created in the jurisdictional vital records electronic death registration system (EDRS) and is populated with the information previously entered by the medical staff and the physician in the EHR. The physician has now attested the death using an approved method and the record is in the EDRS system. The EDRS death record is accessed by the funeral home which then completes their portion of the death certificate. The funeral director collects information from Javier's father and adds this information in the EDRS. He enters the decedent's race and ethnic group as well as Javier's industry which is "Academic". He also enters Javier's occupation, indicating that Javier was employed as a psychologist. In the course of his interview with Javier's father, the funeral director learns that an unsuccessful surgery was performed in an attempt to save Javier, so he enters the date that Javier's surgery was performed into the EDRS. The completed record is then submitted for registration. Once the jurisdictional vital records office registers the death, the death certificate is considered complete. At this time, a HL7 ADT^A04 message containing cause of death literals is automatically sent to NCHS.
Report_JDI_A04_V1.0	
	Test Objectives:
	The message must provide: Patient demographic information in the PID segment to provide basic demographics to allow identification of the person and matching of the record with information from the funeral director as well as death reporting observations in the OBX Observation/Result segments and further information on the patient death and possible autopsy in the PDA segment. The test case provides an example of relevant elements of recording the death of a patient, and of collecting the information needed to support filing a death certificate.
	Support for Date/Time of Birth
	Support for Death Location
	Support for Autopsy Indicator
	Support for Coroner Indicator
	Support for Observation Value
	Support for Death Certificate Signed Date/Time
	Support for Death Certified By
	Support for Death Certifier Type
	Support for Death Cause Other Significant Conditions
	Support for Death Pronouncer Details
	Support for Did death involve any injury of any kind

	Support for Did Tobacco use contribute to death Support for Disease onset to death interval Support for Manner of Death Support for Part\Line Number Support for Street Address where death occurred if not facility Support for Race Support for Ethnic Group Support for Industry Support For Occupation Support for Surgery Date
Revise_JDI_A08_V1.0	**Description:** **After Javier's death was reported to the national statistical agency via an A04 message from the EHR, the funeral director realizes that he incorrectly entered Javier's surgery date in the jurisdictional EDRS.** **He corrects the decedent's surgery date in the EDRS. The updated record for Vivienne Wright is transmitted via an ADT^A08 message from the EDRS to the national statistical agency.** **Test Objectives:** This test case examines the ability of an EHR to create an ADT A08 message for revising of relevant clinical information to the Electronic Death Registration System (EDRS). Support for revised decedent's street address.
Cancel_JDI_A11_V1.0	**Description:** **Several days after transmission of updated information, it was discovered that a more complete medical record exists for Javier under a different SSN. It becomes necessary to send a retraction of the previous report. The cancellation record for Javier Smith is transmitted via an ADT^A11 message from the EHR to the jurisdictional vital records office.**

Test Objectives:

This test case examines the ability of an EHR to create an ADT A11 message for cancellation of relevant clinical information to the Electronic Death Registration System (EDRS).

Test Case	VR-1 Death of a Pregnant Woman

Description:

Sending death information from the provider for a death that occurred at home.

Test Steps

	Description: **Vivienne Wright's death certificate has been created in the jurisdictional vital records electronic death registration system (EDRS) and is populated with the information previously entered by the medical staff and the physician in the EHR. The physician has now attested the death using an approved method and the record is in the EDRS system. The EDRS death record is accessed by the funeral home which then completes their portion of the death certificate. The funeral director collects information from Vivienne's mother and adds this information in the EDRS. . He verifies Vivienne's age and sets the age edit flag in the EDRS to indicate that this edit had passed verification. He also sets the Pregnancy edit flag to indicate that her pregnancy information had been entered correctly. Vivienne's mom supplies her birth certificate and the funeral director uses it to determine Vivienne's State/Province of birth. He enters this into her record along with her father's surname. Vivienne's Will stated that she wished to be buried so the funeral director enters this information as the method of disposition in the EDRS. The completed record is then submitted for registration. Once the jurisdictional vital records office registers the death, the death certificate is considered complete. At this time, a HL7 ADT^A04 message containing cause of death literals is automatically sent to NCHS.** **Test Objectives:** The message must provide: Patient demographic information in the PID segment to provide basic demographics to allow identification of the person and matching of the record with information from the funeral director as well as death reporting observations in the OBX Observation/Result segments and further information on the patient death and possible autopsy in the PDA segment. The test case provides an example of relevant elements of recording the death of a patient, and of collecting the information needed to support filing a death certificate. Support for Date/Time of Birth Support for Death Location Support for Autopsy Indicator Support for Coroner Indicator Support for Observation Value Support for Death Certificate Signed Date/Time Support for Death Certified By
Report_JDI_A04_V1.0	

	Support for Coroner - Medical Examiner Case Number Support for Death Certifier Type Support for Did death involve any injury of any kind Support for Did Tobacco use contribute to death Support for Disease onset to death interval Support for Part\Line Number Support for Referral Note Support for Age at Death Support for Age Edit Flag Support for Race Support for Ethnic Group Support for Father's Surname Support for Method of Disposition Support for Timing of Recent Pregnancy Related to Death Support for Pregnancy Edit Flag Support for State/Province of birth
Revise_JDI_A08_V1.0	**Description:** **After Vivienne's death was reported to the national statistical agency via an A04 message from the EHR, the funeral director realizes that he incorrectly entered Vivienne's father's surname in the jurisdictional EDRS.** He corrects the decedent's father's surname in the EDRS. The updated record for Vivienne Wright is transmitted via an ADT^A08 message from the EDRS to the national statistical agency. **Test Objectives:** This test case examines the ability of an EHR to create an ADT A08 message for revising of relevant clinical information to the Electronic Death Registration System (EDRS).
Cancel_JDI_A11_V1.0	**Description:** Several days after transmission of updated information, it becomes necessary to send a retraction of the previous report. The cancellation record for Vivienne Wright is transmitted via an ADT^A11 message from the EDRS to the national statistical agency. **Test Objectives:** This test case examines the ability of an EHR to create an ADT A11 message for cancellation of relevant clinical information to the Electronic Death Registration System (EDRS).