

## Completion of Death Certificates in the Aftermath of a Hurricane

Death certificates are used widely for many critical uses. For example, families use them to close out estates as well as to reach emotional closure about the loss of their relative. Information from death certificates is also the fundamental source for official mortality statistics which are used to support statements such as “The impact of the 2005 Atlantic hurricane season and the resulting death, injury, destruction, and population displacement were unprecedented in U.S. history.” (CDC. MGuide: Hurricanes, accessed at [http://www.cdc.gov/mmwr/mguide\\_nd.html](http://www.cdc.gov/mmwr/mguide_nd.html)) and to more generally define the mortality scope and impact of particular events. Having more information about past events helps plan for future catastrophic storms.

The medical examiner, coroner, or physician’s primary responsibility in certifying or completing the death certificate is to provide a medical opinion on cause of death, that is, an etiological description of the order, type, and association of events resulting in death. In reporting the cause of death, any disease, abnormality, injury, or poisoning believed to have adversely affected the decedent should be reported as specifically and precisely as possible. He or she may also complete other legal and demographic items on the death certificate although normally a funeral director would complete this other information.

In Part I, a sequence of events or conditions should be reported with the most recent listed on line a (e.g., asphyxia or drowning) and the initiating event on the lowest used line (e.g., residence flooded). Report a single event on each line even when the events are essentially simultaneous. Report all other important events or conditions that were present at the time of death and that may have contributed to the death, but were not part of the causal sequence (reported in Part I) in Part II. The certifier can elaborate upon the basic description reported in Part I in the additional items about injury on the death certificate (e.g., residence flooded in the hurricane storm surge).

Examples: Report the hurricane if it was a factor in death occurring. In the last example, the certifier has not reported anything about the hurricane, so if he or she thought the hurricane played any role, that information is lost. The other examples indicate how the certifier felt the hurricane influenced the death.

<b>CAUSE OF DEATH (See instructions and examples)</b>			Approximate interval: Onset to death
<p>32. <b>PART I.</b> Enter the <u>chain of events</u>--diseases, injuries, or complications--that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.</p> <p>IMMEDIATE CAUSE (Final disease or condition -----&gt; resulting in death)</p> <p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the <b>UNDERLYING CAUSE</b> (disease or injury that initiated the events resulting in death) <b>LAST</b></p>	<p>a. <u>Crushed chest</u> Due to (or as a consequence of): _____</p> <p>b. <u>Shed collapsed during hurricane</u> Due to (or as a consequence of): _____</p> <p>c. _____ Due to (or as a consequence of): _____</p> <p>d. _____</p>	<p>_____.</p> <p>_____.</p> <p>_____.</p> <p>_____.</p>	
<p><b>PART II.</b> Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in PART I.</p> <p>Head trauma</p>		<p>33. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p>35. DID TOBACCO USE CONTRIBUTE TO DEATH?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> Probably</p> <p><input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown</p>	<p>36. IF FEMALE:</p> <p><input type="checkbox"/> Not pregnant within past year</p> <p><input type="checkbox"/> Pregnant at time of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant within 42 days of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death</p> <p><input type="checkbox"/> Unknown if pregnant within the past year</p>	<p>37. MANNER OF DEATH</p> <p><input type="checkbox"/> Natural <input type="checkbox"/> Homicide</p> <p><input checked="" type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation</p> <p><input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined</p>	

CAUSE OF DEATH (See instructions and examples)				Approximate interval: Onset to death
<p>32. <b>PART I.</b> Enter the <u>chain of events</u>--diseases, injuries, or complications--that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.</p> <p>IMMEDIATE CAUSE (Final disease or condition -----&gt; resulting in death)</p> <p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the <b>UNDERLYING CAUSE</b> (disease or injury that initiated the events resulting in death) <b>LAST</b></p>				
<p>a. <u>Fracture vertebra</u> Due to (or as a consequence of): _____</p> <p>b. <u>Contusion of spinal cord</u> Due to (or as a consequence of): _____</p> <p>c. <u>Light pole accident</u> Due to (or as a consequence of): _____</p> <p>d. _____</p>				_____
<p><b>PART II.</b> Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in PART I.</p> <p>Working to restore power from hurricane</p>				<p>33. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>35. DID TOBACCO USE CONTRIBUTE TO DEATH?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> Probably</p> <p><input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown</p>	<p>36. IF FEMALE:</p> <p><input type="checkbox"/> Not pregnant within past year</p> <p><input type="checkbox"/> Pregnant at time of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant within 42 days of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death</p> <p><input type="checkbox"/> Unknown if pregnant within the past year</p>	<p>37. MANNER OF DEATH</p> <p><input type="checkbox"/> Natural <input type="checkbox"/> Homicide</p> <p><input checked="" type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation</p> <p><input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined</p>		
<p>38. DATE OF INJURY (Mo/Day/Yr) (Spell Month)</p> <p>September 8, 2005</p>	<p>39. TIME OF INJURY</p> <p>Approx. 1300</p>	<p>40. PLACE OF INJURY (e.g., Decedent's home; construction site; restaurant; wooded area)</p> <p>In easement of a yard in residential community</p>	<p>41. INJURY AT WORK?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	
<p>42. LOCATION OF INJURY: State: <u>Alabama</u> City or Town: <u>Columbus</u></p> <p>Street &amp; Number: <u>3129 Discus Avenue</u> Apartment No.: _____ Zip Code: <u>35487-0002</u></p>				
<p>43. DESCRIBE HOW INJURY OCCURRED:</p> <p>Light pole fell on him while repairing downed lines</p>			<p>44. IF TRANSPORTATION INJURY, SPECIFY:</p> <p><input type="checkbox"/> Driver/Operator</p> <p><input type="checkbox"/> Passenger</p> <p><input type="checkbox"/> Pedestrian</p> <p><input type="checkbox"/> Other (Specify) _____</p>	

CAUSE OF DEATH (See instructions and examples)				Approximate interval: Onset to death
<p>32. <b>PART I.</b> Enter the <u>chain of events</u>--diseases, injuries, or complications--that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.</p> <p>IMMEDIATE CAUSE (Final disease or condition -----&gt; resulting in death)</p> <p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the <b>UNDERLYING CAUSE</b> (disease or injury that initiated the events resulting in death) <b>LAST</b></p>				
<p>a. <u>Acute respiratory failure</u> Due to (or as a consequence of): _____</p> <p>b. <u>Severe emphysema</u> Due to (or as a consequence of): _____</p> <p>c. <u>Heat and loss of air conditioner power from hurricane</u> Due to (or as a consequence of): _____</p> <p>d. _____</p>				<p><u>4 hours</u></p> <p>_____</p> <p>_____</p> <p>_____</p>
<p><b>PART II.</b> Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in PART I.</p>				<p>33. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>
<p>35. DID TOBACCO USE CONTRIBUTE TO DEATH?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> Probably</p> <p><input type="checkbox"/> No <input checked="" type="checkbox"/> Unknown</p>	<p>36. IF FEMALE:</p> <p><input type="checkbox"/> Not pregnant within past year</p> <p><input type="checkbox"/> Pregnant at time of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant within 42 days of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death</p> <p><input type="checkbox"/> Unknown if pregnant within the past year</p>	<p>37. MANNER OF DEATH</p> <p><input checked="" type="checkbox"/> Natural <input type="checkbox"/> Homicide</p> <p><input type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation</p> <p><input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined</p>		

Note: There is no mention of a hurricane on the following certificate, so any connection with the hurricane is now lost.

<b>CAUSE OF DEATH (See instructions and examples)</b>				Approximate interval: Onset to death	
<p>32. <b>PART I.</b> Enter the <u>chain of events</u>--diseases, injuries, or complications--that directly caused the death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE. Enter only one cause on a line. Add additional lines if necessary.</p> <p>IMMEDIATE CAUSE (Final disease or condition -----&gt; resulting in death)</p> <p>Sequentially list conditions, if any, leading to the cause listed on line a. Enter the <b>UNDERLYING CAUSE</b> (disease or injury that initiated the events resulting in death) <b>LAST</b></p>				<p>_____.</p> <p>_____.</p> <p>_____.</p>	
<p>a. <u>Massive head trauma</u> Due to (or as a consequence of):</p> <p>b. <u>Car collides with falling tree</u> Due to (or as a consequence of):</p> <p>c. _____ Due to (or as a consequence of):</p> <p>d. _____</p>					
<p><b>PART II.</b> Enter other <u>significant conditions contributing to death</u> but not resulting in the underlying cause given in PART I.</p>			<p>33. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>34. WERE AUTOPSY FINDINGS AVAILABLE TO COMPLETE THE CAUSE OF DEATH? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>		
<p>35. DID TOBACCO USE CONTRIBUTE TO DEATH?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> Probably</p> <p><input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown</p>		<p>36. IF FEMALE:</p> <p><input checked="" type="checkbox"/> Not pregnant within past year</p> <p><input type="checkbox"/> Pregnant at time of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant within 42 days of death</p> <p><input type="checkbox"/> Not pregnant, but pregnant 43 days to 1 year before death</p> <p><input type="checkbox"/> Unknown if pregnant within the past year</p>		<p>37. MANNER OF DEATH</p> <p><input type="checkbox"/> Natural <input type="checkbox"/> Homicide</p> <p><input checked="" type="checkbox"/> Accident <input type="checkbox"/> Pending Investigation</p> <p><input type="checkbox"/> Suicide <input type="checkbox"/> Could not be determined</p>	
<p>38. DATE OF INJURY (Mo/Day/Yr) (Spell Month)</p> <p>August 29, 2005</p>		<p>39. TIME OF INJURY</p> <p>1130</p>		<p>40. PLACE OF INJURY (e.g., Decedent's home; construction site; restaurant; wooded area)</p> <p>In decedent's car on road</p>	
<p>41. INJURY AT WORK? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>					
<p>42. LOCATION OF INJURY: State: Mississippi City or Town: near Pas Christian</p> <p>Street &amp; Number: 800 block of Sylvan Road Apartment No.: Zip Code: 39571-1234</p>					
<p>43. DESCRIBE HOW INJURY OCCURRED:</p> <p>Car collided with falling tree</p>				<p>44. IF TRANSPORTATION INJURY, SPECIFY:</p> <p><input checked="" type="checkbox"/> Driver/Operator</p> <p><input type="checkbox"/> Passenger</p> <p><input type="checkbox"/> Pedestrian</p> <p><input type="checkbox"/> Other (Specify)</p>	

Resources: For more information on how to complete the medical certification section of the death certificate, request instructions and handbooks from the State vital statistics offices or CDC's National Center for Health Statistics (Room 7318, Toledo Road, Hyattsville, Maryland 20782 or <http://www.cdc.gov/nchs/about/major/dvs/handbk.htm>).