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## Physician's Role is Critical for Improving Data from Death Certificates

**Introduction:** Most physicians will be faced with the task of completing a death certificate. In Mississippi, a death certificate functions as a legal document and a data collection tool. By completing the cause-of-death portion of this record accurately and according to carefully established guidelines, the physician is not only fulfilling his legal obligation to report the death, but is also participating in a world-wide system of mortality data collection.

**Background:** The death certificate is one of the most important sources of data available regarding health in the United States. The cause of death information provided by physicians on individual death certificates is the basis for local, state and national mortality data and is essential to the understanding of the epidemiology and natural history of health and disease. Data are used to assess the general health of the population, to evaluate the success of medical treatment, to identify the leading causes of death and to calculate years of potential life lost to specific diseases and injuries.

It is the physician's responsibility to provide information as accurately as possible. The conditions reported by the physician on the death certificate are coded and tabulated according to the latest revision of the International Classification of Diseases. The data are then shared with the National Center for Health Statistics. These data are a major means for identifying public health problems and for measuring the effectiveness of public health programs.

It is also necessary for physicians to be familiar with state regulations which identify deaths that "affect the public interest" (including, but not limited to, unattended or unexpected deaths, deaths from any type of accident, suicide, or homicide), as these must be referred to the county coroner for investigation. Any death from an external cause (including falls, car wreck, poisoning, or drug toxicity), regardless of whether or not the deceased had been hospitalized or been under the care of a physician, can only be certified and signed by the county coroner.

The timeliness of death registration via the submission of a death certificate to the Mississippi State Department of Health (MSDH) for permanent filing is critical. The death certificate is the primary legal document establishing the fact of death of an individual and is required for the settlement of estates, insurance claims, and Social Security. The death certificate should be signed and delivered to the appropriate funeral home within 72 hours of the death.

**Death Certification:** There are several MSDH publications available to assist in the process of completing a death certificate:

- *MSDH Rules and Regulations Governing the Registration of Vital Events,* <u>http://www.msdh.state.ms.us/phs/VR\_rules\_2007.pdf</u>
- *The Handbook on Registration and Reporting of Vital Events,* which provides step by step instruction on how to complete a death certificate, http://www.msdh.state.ms.us/phs/Handbook Reg Reporting Vital Events.pdf
- Cause of Death Quick Fact Sheet, http://www.msdh.state.ms.us/phs/Cause\_of\_Death\_Quick\_Fact\_Sheet.pdf

These documents may also be accessed at www.healthyms.com/vital

It is important that the cause of death and, in particular, the underlying cause of death, be reported as specifically and as precisely as possible. The immediate cause of death should be the final disease or complication directly causing the death. Never use the following terms in the cause of death section on the death certificate, as they are modes of dying, not causes of death:

- Cardiac arrest
- Respiratory arrest
- Cardiopulmonary arrest

- Failure to thrive
- Respiratory failure
- Multi organ/system failure

When assigning an immediate cause of death, consider what the immediate cause was due to. If another disease or condition gave rise to the immediate cause of death, also report that disease or condition. The following terms are examples of an acceptable immediate cause of death; however these would not necessarily be the underlying cause of death and would require the physician to list the underlying cause on the next line.

- Bronchopneumonia
- Acute myocardial infarct
- Intracerebral hemorrhage
- Liver failure

- Pulmonary embolism
- Coagulopathy
- Congestive heart failure

The following example shows a properly reported cause of death sequence. The immediate cause of death (a) is "rupture of the myocardium" caused by (b) "acute myocardial infarction" caused by (c) "ischemic heart disease", which in this case, is the underlying cause of death.

CAUSE OF 26. PART I. – Enter the chain of events – diseases, injuries or complications – that directly caused the death. DO NOT enter terminal events such as cardiac, arrest, shock, or heart failure without showing the etiology. List only one cause on each line. DO NOT USE ABBREVIATIONS.									
IMMEDIATE CAUSE (final disease or condition resulting in death)	n →								
		(a) Rupture of m						Immediate	
Sequentially list condition if any, leading to immedicause. Enter UNDERLY	diate								
CAUSE (disease or injury		(b) Acute myocardial infarction							
that initiated events result in death) LAST.	ting	DUE TO, OR AS A CONSEQUENCE OF (Enter one cause only)							
(c) Chronic ischemic heart disease								5 yrs	
DUE TO, OR AS A CONSEQUENCE OF (Enter one cause only)									
		(d)							
27. PART 11: OTHER SIGNIFICANT CONDITIONS - conditions contributing to death but not resulting in the underlying cause given in PART 1. 28. AUTOPSY 29. WAS CAS (Yes or No) MEDICAL									
Influenza, Pneumococcal pneumonia No (Yes or N								o) <b>No</b>	
30. IF FEMALE, D Was not pregnant within the past year D Was pregnant at the time of death Not pregnant, but pregnant within 42 days of SPECIFY.								ys of death	
Not pregnant, but had been pregnant 43 days to 1 year before death Unknown if pregnant within the past year Jac ACCIDENT SUICIDE HOMICIDE PENDING 31b DATE OF INJURY 31c HOUR OF INJURY 31d DESCRIBE HOW OR BY WHAT MEANS INJURY OCCURRED									
Use if 31. Death	31a. ACCIDENT, SUICIDE, HOMICIDE, PENDING 31b. DATE OF INJURY 31c HOUR OF INJURY 31d. DESCRIBE HOW OR BY WHAT MEANS IN INVESTIGATION, OR UNDERTERMINED (Month, Day, Year)								
NOT	(Specify) m.								
due to	e. INJURY AT WORK	226 DLACE OF INITIRY	(Specify Home Form	LOCATION Stre	et or route number	C	ty or town	State	
natural 31 causes	(Ver or No) Street Factory Office building etc.)								
Causes		. ,.							

**Conclusion:** The need for accurate and reliable mortality analysis cannot be overstated. The only way to protect the integrity of the data derived from death certificates is for the physician to give proper attention to the completion of the **CAUSE OF DEATH** section for immediate and underlying causes of death, thereby ensuring that these reflect the best medical opinion.

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## Mississippi Provisional Reportable Disease Statistics

February 2010

		Public Health District								State Totals*				
		I	П	ш	IV	V	VI	VII	VIII	IX	Feb 2010	Feb 2009	YTD 2010	YTD 2009
Sexually Transmitted Diseases	Primary & Secondary Syphilis	2	1	0	0	8	3	0	3	1	18	20	21	25
	Total Early Syphilis	6	2	1	3	23	5	0	5	1	46	40	51	58
	Gonorrhea	34	35	55	48	113	40	28	36	42	431	550	867	1,168
	Chlamydia	195	127	202	186	386	136	102	178	175	1,687	1,756	3,132	3,642
	HIV Disease	4	6	3	3	25	1	1	5	9	57	58	87	104
Myco- bacterial Diseases	Pulmonary Tuberculosis (TB)	1	0	0	0	0	0	0	0	2	3	4	7	4
	Extrapulmonary TB	0	0	0	0	0	0	0	0	0	0	0	1	0
	Mycobacteria Other Than TB	2	2	0	1	14	1	2	2	8	32	34	62	57
Vaccine Preventable Diseases	Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0	0
	Pertussis	1	0	0	2	2	0	0	0	1	6	2	9	19
	Tetanus	0	0	0	0	0	0	0	0	0	0	0	0	0
	Poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0	0
	Measles	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mumps	0	0	0	0	0	0	0	0	0	0	0	0	0
	Hepatitis B (acute)	0	0	1	0	1	0	0	0	0	2	2	3	4
	Invasive <i>H. influenzae</i> b disease	0	0	0	0	0	0	0	0	0	0	0	0	0
	Invasive Meningococcal disease	1	0	0	0	0	0	0	0	0	1	0	1	0
	Hepatitis A (acute)	0	0	0	0	0	0	0	0	0	0	1	0	3
Se	Salmonellosis	1	1	1	0	2	0	1	2	3	11	34	31	71
Enteric Diseases	Shigellosis	0	0	0	0	0	0	0	0	0	0	1	2	5
	Campylobacteriosis	0	1	0	0	1	0	0	1	0	3	5	14	17
	E. coli O157:H7/HUS	0	0	0	0	0	0	0	0	1	1	1	2	1
Zoonotic Diseases	Animal Rabies (bats)	0	0	0	0	0	0	0	0	0	0	0	0	0
	Lyme disease	0	0	0	0	0	0	0	0	0	0	0	0	0
	Rocky Mountain spotted fever	0	0	0	0	0	0	0	0	0	0	0	0	0
west Mile vii us		0	0	0	0	0	0	0	0	0	0	0	1	1
*Totals include reports from Department of Corrections and those not reported from a specific District.														

## Implementing an Electronic Death Registration (EDR) System

Mississippi is one of six remaining states without an Electronic Death Registration (EDR) System in place. Over the past few months, the Mississippi State Department of Health, Office of Vital Records has held town hall meetings across the state speaking to funeral home directors, coroners, hospital administrators, and medical records personnel regarding implementation of an EDR. These stakeholders have been overwhelmingly supportive of this change and are ready to move Mississippi forward in the electronic death certification process. Physicians will also play a key role in the development of this system since the EDR will provide an electronic method to certify the cause of death.

The primary purpose of an EDR system is to enable the participants in death registration to file death records with the state registrar electronically. Benefits of an EDR include: paperless completion and filing of a death record, facilitation of on-line collaboration among multiple death registration system users (including funeral homes, hospitals, physicians and coroners), and allowing multiple users access to the case at the same time. This electronic system is key to correcting many longstanding problems that delay the certification of death records.

A Mississippi EDR steering committee has been formed that consist of physicians, coroners and personnel from funeral homes, hospitals and vital records. This committee will meet several times over the next few months to design the EDR and develop an implementation plan for Mississippi. Please look for upcoming news and information as the EDR system continues to be developed and implemented throughout Mississippi.