Rx for Prevention

Promoting health through prevention in Los Angeles County

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This Issue

Creating an Accurate Cause of Death Statement on a Death Certificate

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Death certificates are important legal documents. Physicians play a vital role in ensuring that the medical information is accurate, timely, and complete.

A death certificate is a vital legal document that contains the date, location, and cause of a person's death. The information provided on the death certificate is as important to families and the health of the population as the information entered in medical records is to individuals. Even so, physicians, who have primary responsibility for determining the cause and manner of death, often receive little formal training in completing the death certificate.

A death certificate is vital not only for settling estates, closing bank accounts, determining insurance and pension benefits, and providing evidence in court, it is also important for monitoring mortality trends, providing outcome data for research studies, and for setting priorities for health-related funding, research, and interventions. In some circumstances, death certificates may also be used for surveillance of unusual health conditions and conditions of public health significance.

In most cases, the attending physician is responsible for determining and completing the cause-of-death section on the death certificate. Since statistical data are derived from this, it is important to complete the death registration process as accurately and promptly as possible.

The Process

On October 1, 2007, Los Angeles County implemented the web-based California Electronic Death Registration System (CA-EDRS) to expedite the death registration process. This paperless system enables funeral directors, physicians, coroners, and hospitals to submit electronic death certificates for registration 24 hours per day. This around-the-clock access assures that death registration can occur within the 8 days required by California law and that the cause of death can be reported by the physician within the required 15 hours (California Health and Safety Code, Chapter 6, Article 1, §102775-102805).

The funeral director initiates the death registration process by gathering personal and demographic information about the deceased—this responsibility makes the funeral director the anchor of the death registration system. Next, the attending physician or coroner completes the medical portion of the death certificate to determine the manner in which the individual died. Medical examiners or coroners are responsible for investigating any cause of death that is unexpected, unexplained, or resulting from injury, poisoning, or a public health threat. If a case is referred to the coroner, the coroner enters cause-of-death information directly into CA-EDRS under the "Coroner's use only" section.

In most cases, however, the attending physician is responsible for determining the cause of death. The physician

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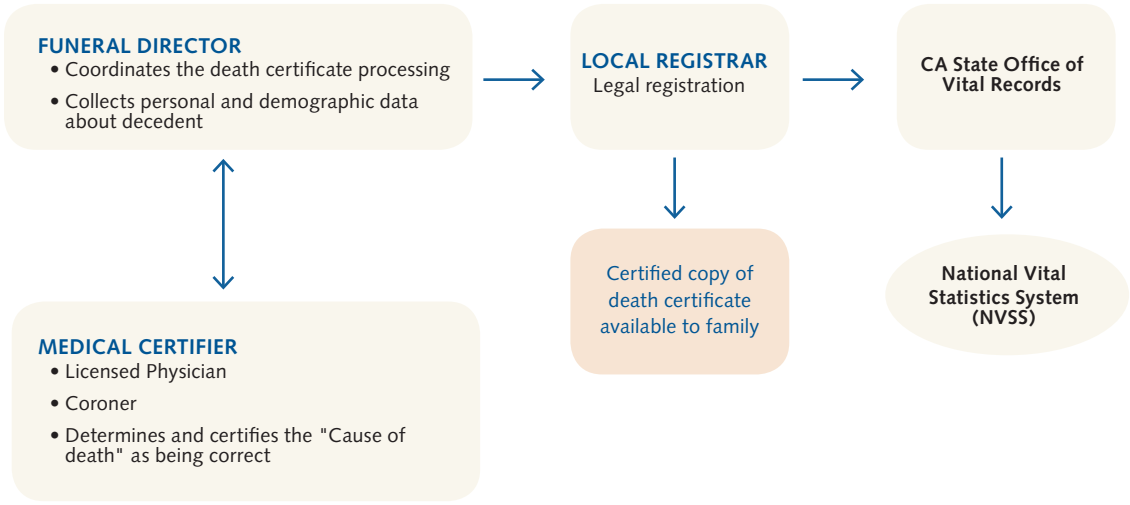
County of Los Angeles Public Health

Figure 1. Death Registration Process



receives a cause-of-death worksheet provided by the funeral director; once completed, he or she returns it to the funeral director. The death certificate is then forwarded to the local Department of Public Health; in LA County, it is the Registrar for the LA County Department of Public Health. The death certificate is reviewed and the cause of death is checked for compliance with the International Classification of Diseases 10th revision (ICD-10) rules and for acceptance of the death certificate in accordance with state guidelines. Once the death certificate is accepted by the local Registrar, the physician must attest to the accuracy of the cause-of-death information on the certificate. This is done remotely using either a fax machine to send the physician's signed attestation to the funeral home or by telephone, which requires the physician to dial a toll-free number to provide a voice attestation. The death certificate can then be submitted to the Public Health Registrar by the funeral director for legal registration.

Throughout the death registration process, information is entered directly into CA-EDRS. Los Angeles County data are incorporated into both state and national databases, which are used to describe the characteristics of those who died, to determine life expectancy, and to compare mortality trends and patterns with other jurisdictions. Mortality data for Los Angeles County residents are summarized annually in a report that describes the leading causes of death and premature death and that examines 10-year mortality trends.[1] Nationally, the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) compiles data for the United States that are also published annually.[2] Figure 1 depicts the sequence of events that occur throughout the course of the death registration process.

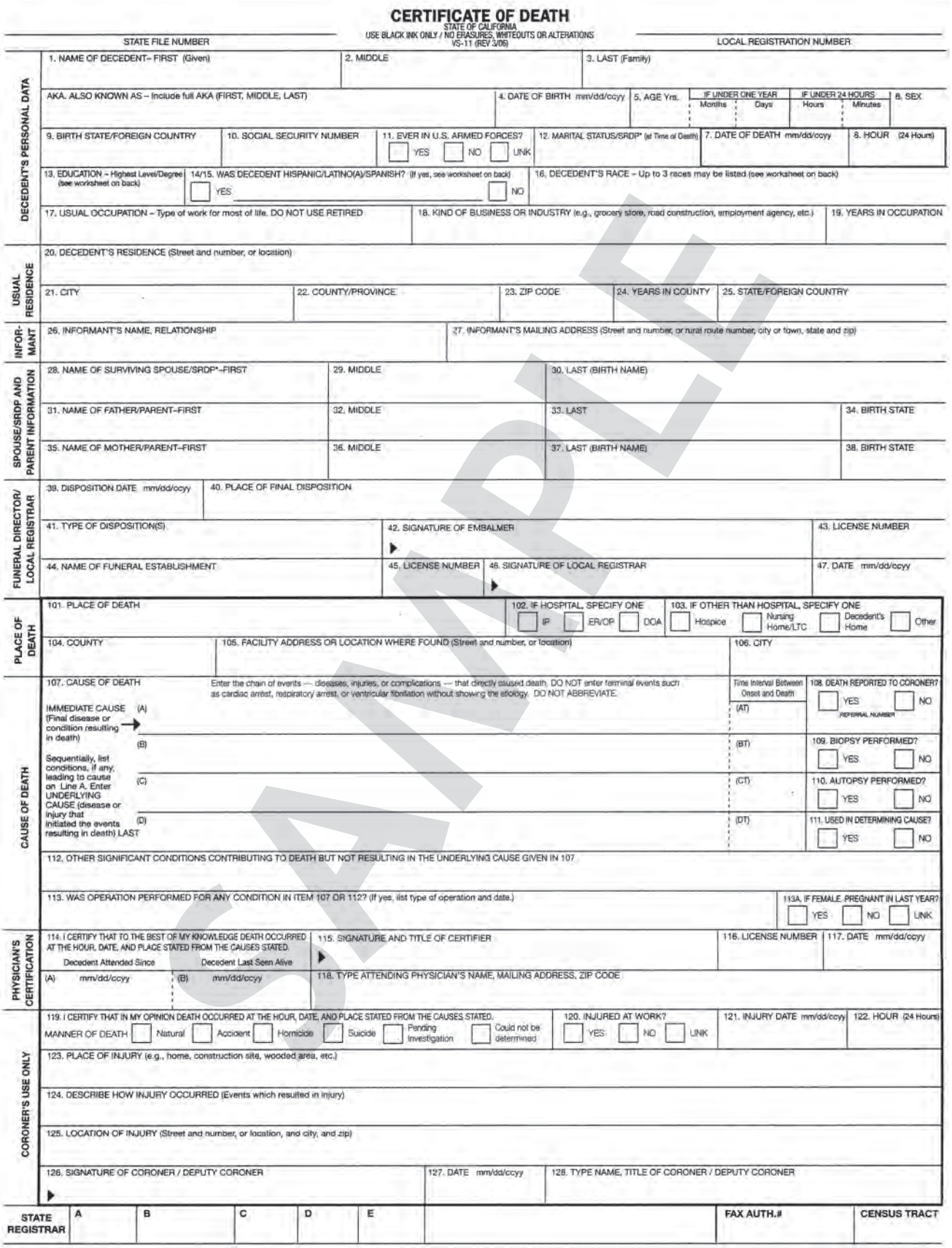
The Cause-of-Death Section: Instructions for Physicians

Section 107 of the California Certificate of Death (Figure 2) is the most difficult section to complete. It is the physician's responsibility to report the cause of death as correctly as possible based on his or her best medical opinion. The section consists of two parts. Part I is a sequential list of conditions leading to the immediate cause of death and the time intervals between their onset and the death. Part II is a list of other conditions contributing to, but not directly causing, death.

PART I

Immediate cause of death: Item 107(A) is for the immediate cause of death. This should be a disease, condition, or injury that directly resulted in death. A common error is to list a mechanism of death (for example, cardiac arrest) rather than a disease (myocardial infarction). Vague terms such as "brain dead" or "pulmonary arrest" cannot be used on the death certificate. If cancer is the immediate cause of death, the primary site, cell type, and specific organ or lobe affected must be listed. Examples are "adenocarcinoma of sigmoid colon" or "squamous cell cancer of the breast." Terms such as "old age" or "senescence" are not acceptable since they do not actually cause death. Autopsy cases must always be referred to the coroner (with the exception of a few teaching medical facilities) and, in some cases, it is appropriate for the coroner to list the cause of death as "deferred" while waiting for the cause of death results. If a death certificate is registered as "deferred," an amendment needs to be filed by the coroner in CA-EDRS as soon as the results are available. In rare circumstances, after investigation, the coroner may list the cause of death as

Figure 2. Sample Form of California Certificate of Death



CERTIFICATE OF DEATH

STATE OF CALIFORNIA

USE BLACK INK ONLY / NO ERASURES, WHITEOUTS OR ALTERATIONS

VS-11 (REV 3/06)

STATE FILE NUMBER

LOCAL REGISTRATION NUMBER

DECEDENT'S PERSONAL DATA

1. NAME OF DECEDENT– FIRST (Given)
2. MIDDLE
3. LAST (Family)
AKA. ALSO KNOWN AS – Include full AKA (FIRST, MIDDLE, LAST)
4. DATE OF BIRTH mm/dd/ccyy
5. AGE Yrs.
IF UNDER ONE YEAR Months Days
IF UNDER 24 HOURS Hours Minutes
6. SEX
9. BIRTH STATE/FOREIGN COUNTRY
10. SOCIAL SECURITY NUMBER
11. EVER IN U.S. ARMED FORCES? YES NO UNK
12. MARITAL STATUS/SRDP* (at Time of Death)
7. DATE OF DEATH mm/dd/ccyy
8. HOUR (24 Hours)
13. EDUCATION – Highest Level/Degree (see worksheet on back)
14/15. WAS DECEDENT HISPANIC/LATINO(A)/SPANISH? (If yes, see worksheet on back) YES NO
16. DECEDENT'S RACE – Up to 3 races may be listed (see worksheet on back)
17. USUAL OCCUPATION – Type of work for most of life. DO NOT USE RETIRED
18. KIND OF BUSINESS OR INDUSTRY (e.g., grocery store, road construction, employment agency, etc.)
19. YEARS IN OCCUPATION

USUAL RESIDENCE

20. DECEDENT'S RESIDENCE (Street and number, or location)
21. CITY
22. COUNTY/PROVINCE
23. ZIP CODE
24. YEARS IN COUNTY
25. STATE/FOREIGN COUNTRY

INFORMANT

26. INFORMANT'S NAME, RELATIONSHIP
27. INFORMANT'S MAILING ADDRESS (Street and number, or rural route number, city or town, state and zip)

SPOUSE/SRDP AND PARENT INFORMATION

28. NAME OF SURVIVING SPOUSE/SRDP*–FIRST
29. MIDDLE
30. LAST (BIRTH NAME)
31. NAME OF FATHER/PARENT–FIRST
32. MIDDLE
33. LAST
34. BIRTH STATE
35. NAME OF MOTHER/PARENT–FIRST
36. MIDDLE
37. LAST (BIRTH NAME)
38. BIRTH STATE

FUNERAL DIRECTOR/ LOCAL REGISTRAR

39. DISPOSITION DATE mm/dd/ccyy
40. PLACE OF FINAL DISPOSITION
41. TYPE OF DISPOSITION(S)
42. SIGNATURE OF EMBALMER
43. LICENSE NUMBER
44. NAME OF FUNERAL ESTABLISHMENT
45. LICENSE NUMBER
46. SIGNATURE OF LOCAL REGISTRAR
47. DATE mm/dd/ccyy

PLACE OF DEATH

101. PLACE OF DEATH
102. IF HOSPITAL, SPECIFY ONE IP ER/OP DOA
103. IF OTHER THAN HOSPITAL, SPECIFY ONE Hospice Nursing Home/LTC Decedent's Home Other
104. COUNTY
105. FACILITY ADDRESS OR LOCATION WHERE FOUND (Street and number, or location)
106. CITY

CAUSE OF DEATH

107. CAUSE OF DEATH
Enter the chain of events — diseases, injuries, or complications — that directly caused death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE.
IMMEDIATE CAUSE (Final disease or condition resulting in death) (A)
Sequentially, list conditions, if any, leading to cause on Line A. Enter UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST (B) (C) (D)
Time Interval Between Onset and Death (A) (B) (C) (D)
108. DEATH REPORTED TO CORONER? YES NO REFERRAL NUMBER
109. BIOPSY PERFORMED? YES NO
110. AUTOPSY PERFORMED? YES NO
111. USED IN DETERMINING CAUSE? YES NO
112. OTHER SIGNIFICANT CONDITIONS CONTRIBUTING TO DEATH BUT NOT RESULTING IN THE UNDERLYING CAUSE GIVEN IN 107
113. WAS OPERATION PERFORMED FOR ANY CONDITION IN ITEM 107 OR 112? (If yes, list type of operation and date.)
113A. IF FEMALE, PREGNANT IN LAST YEAR? YES NO UNK

PHYSICIAN'S CERTIFICATION

114. I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE DEATH OCCURRED AT THE HOUR, DATE, AND PLACE STATED FROM THE CAUSES STATED.
Decedent Attended Since (A) mm/dd/ccyy
Decedent Last Seen Alive (B) mm/dd/ccyy
115. SIGNATURE AND TITLE OF CERTIFIER
116. LICENSE NUMBER
117. DATE mm/dd/ccyy
118. TYPE ATTENDING PHYSICIAN'S NAME, MAILING ADDRESS, ZIP CODE

CORONER'S USE ONLY

119. I CERTIFY THAT IN MY OPINION DEATH OCCURRED AT THE HOUR, DATE, AND PLACE STATED FROM THE CAUSES STATED.
MANNER OF DEATH Natural Accident Homicide Suicide Pending Investigation Could not be determined
120. INJURED AT WORK? YES NO UNK
121. INJURY DATE mm/dd/ccyy
122. HOUR (24 Hours)
123. PLACE OF INJURY (e.g., home, construction site, wooded area, etc.)
124. DESCRIBE HOW INJURY OCCURRED (Events which resulted in injury)
125. LOCATION OF INJURY (Street and number, or location, and city, and zip)
126. SIGNATURE OF CORONER / DEPUTY CORONER
127. DATE mm/dd/ccyy
128. TYPE NAME, TITLE OF CORONER / DEPUTY CORONER

STATE REGISTRAR A B C D E FAX AUTH.# CENSUS TRACT

SAMPLE

"Could not be determined" in Section 119. Abbreviations must never be used in section 107, and line 107(A) should never be blank.

Underlying cause of death: Items 107(B-D) are for the intermediate and underlying causes of death. This is the most significant piece of information on the certificate since most mortality analyses are based on the underlying cause of death. Every condition listed should cause the one above it. Thus, entering conditions in an illogical order will prompt the Public Health Registrar to question the cause of death and the certificate will be returned to the funeral director for revision. A useful way to make sure the order of the causes makes sense is to say the phrase "due to" or "as a consequence of," moving from line A down to the last filled-in line. For instance, a death may be due to a pulmonary embolus, as a consequence of hip surgery, resulting from an injury from a fall, resulting from a cerebral infarction. Cerebral infarction is the underlying cause of death. Multiple conditions cannot be listed on 1 line in this section.

Time intervals: To the right of lines 107(A-D) are items 107(AT-DT) where the time intervals between the conditions listed and the time of death are to be listed. The more precise the time the better, but it is acceptable to estimate and use terms such as "approximately." If the time interval is unknown and cannot be estimated, "unknown duration" can be listed. Something must always be entered on these lines next to the corresponding conditions; they cannot be left blank.

PART II

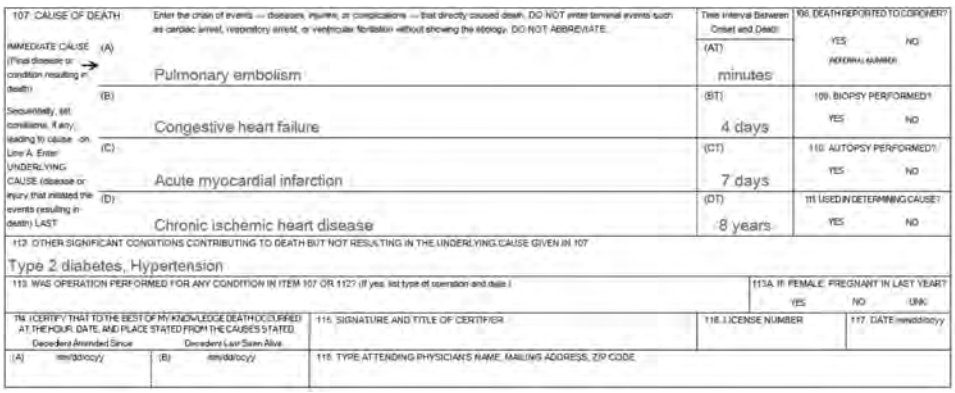
Other significant conditions: Item 112 is where other illnesses or conditions that may have contributed to the death, but were not the direct cause of it, can be listed. Multiple conditions may be listed here. There may be uncertainty as to the direct or contributing causes of death, so it is up to the physician to use his or her best medical judgment as to the most likely causes and sequences contributing to death.

The Big Picture

Most physicians at some point in their careers will complete a death certificate. The cause of death information from each death becomes a permanent legal record and part of our state and national mortality databases; therefore, it is important that physicians, together with all those involved in the death registration process, make every effort to complete each death certificate as accurately and completely as possible. Mortality data are important to physicians since they influence funding for medical and health research and can influence clinical practice. They are also critical for establishing public health priorities. The county's annual mortality summary provides information about the leading causes of death and premature death. For example, in 2010, an average of 155 people died each day in Los Angeles County, including 35 from coronary heart disease, 9 from injuries, and 9 from stroke.[1] The remaining deaths resulted from such causes as emphysema, diabetes, pneumonia, liver disease, and cancer. Without properly completed death certificates, we would not be able to analyze mortality patterns and make them widely available. Additional resources and contact information are listed on page 5 for any questions regarding the death registration process.

Case Study 1

A 68-year-old woman is admitted to the ICU because of acute chest pain. She has Type 2 diabetes, hypertension, obesity, and angina. Over the next 24 hours, an acute myocardial infarction is confirmed. Heart failure develops but improves with management. The woman then experiences a pulmonary embolus, confirmed by ventilation-perfusion lung scan and blood gases; over the next 2 hours she becomes unresponsive and dies. What should be written in the cause of death section?


107. CAUSE OF DEATH — Enter the chain of events — diseases, injuries, or complications — that directly caused death. DO NOT enter terminal events such as cardiac arrest, respiratory arrest, or ventricular fibrillation without showing the etiology. DO NOT ABBREVIATE.

IMMEDIATE CAUSE (Final disease or condition resulting in death) — (A) Pulmonary embolism — (AT) minutes

Sequentially, list conditions, if any, leading to cause on Line A. Enter UNDERLYING CAUSE (disease or injury that initiated the events resulting in death) LAST

(B) Congestive heart failure — (BT) 4 days

(C) Acute myocardial infarction — (CT) 7 days

(D) Chronic ischemic heart disease — (DT) 8 years

106. DEATH REPORTED TO CORONER? YES NO

109. BIOPSY PERFORMED? YES NO

110. AUTOPSY PERFORMED? YES NO

111. USED IN DETERMINING CAUSE? YES NO

112. OTHER SIGNIFICANT CONDITIONS CONTRIBUTING TO DEATH BUT NOT RESULTING IN THE UNDERLYING CAUSE GIVEN IN 107

Type 2 diabetes, Hypertension

113. WAS OPERATION PERFORMED FOR ANY CONDITION IN ITEM 107 OR 112? (If yes, list type of operation and date.)

113A. IF FEMALE, PREGNANT IN LAST YEAR? YES NO UNK

114. I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE DEATH OCCURRED AT THE HOUR, DATE, AND PLACE STATED FROM THE CAUSES STATED. Decedent Attended Since / Decedent Last Seen Alive

115. SIGNATURE AND TITLE OF CERTIFIER

116. LICENSE NUMBER

117. DATE mm/dd/ccyy

(A) mm/dd/ccyy (B) mm/dd/ccyy

118. TYPE ATTENDING PHYSICIAN'S NAME, MAILING ADDRESS, ZIP CODE

Case Study 2

A 75-year-old female has a 15-year history of Type 2 diabetes, history of hypertension, and an uncomplicated myocardial infarction 6 years prior. Her daughter found her disoriented in her home and brought her to the hospital. On admission, she was unresponsive. Laboratory tests disclosed severe hyperglycemia, hyperosmolarity, azotemia, and mild ketosis without acidosis. A diagnosis of hyperosmolar nonketotic coma was made. She was vigorously treated, and within 72 hours her hyperosmolar and hyperglycemic state was resolved. However, she remained anuric with progressive azotemia. Attempts at renal dialysis were unsuccessful. The patient died 8 days later in severe renal failure. What should be written in the cause of death section?

Additional Resources for Physicians

CDC Physician Handbook on Death Certification
www.cdc.gov/nchs/data/misc/hb_cod.pdf

Improving Cause of Death Reporting (online tutorial)
http://www.cdc.gov/primarycare/materials/online-trainings/icdr/player.html

CDC NCHS Mortality Data from the National Vital Statistics System
http://www.cdc.gov/nchs/deaths.htm

California Electronic Death Registration System Website
http://www.edrs.us/edrs/index.jsp

Contacts

Los Angeles County Department of Public Health, Public Health Registrar

Gustavo Feregrino	(213) 240-8029
Roland Carrillo	(323) 869-8510
Alma Ortega	(323) 869-8512
Gregory Mercado	(213) 989-7073

LA County Department of Coroner
Dr. Mark A. Fajardo, Chief Medical Examiner Coroner, (323) 343-0512; After hours, (323) 343-0714

CA-EDRS Help Desk
(916) 552-8123

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1. Los Angeles County Department of Public Health, Office of Health Assessment and Epidemiology. Mortality in Los Angeles County 2010: Leading causes of death and premature death with trends for 2001-2010. October 2013. Available online at http://publichealth.lacounty.gov/dca/data/documents/2010MortalityReport.pdf. Print copies are available from the Office of Health Assessment and Epidemiology at (213) 240-7785.

2. Centers for Disease Control and Prevention. National Vital Statistics Reports, Deaths: Final Data for 2010. May 2013.

Electronic Cigarettes
What Health Care Providers Should Know

Susan Bradshaw, MD, MPH, ABIHM

Tonya Gorham Gallow, MSW

Electronic cigarettes, or e-cigarettes, are battery-operated devices designed to create a vapor that is inhaled by the user ("vaping"). The vapor is produced by heating an internal cartridge that is typically filled with a solution of nicotine, flavors, and other chemicals. The inhaled vapor produces a sensation similar to that of inhaled tobacco smoke.[1-3] E-cigarettes are being widely marketed as a healthier alternative to conventional cigarettes and as a "safe" smoking-cessation aid. Although there are anecdotal reports of smokers who have found e-cigarettes to be helpful in their efforts to quit smoking, the efficacy of e-cigarettes as an aid in smoking cessation has not been demonstrated. These products are currently unregulated and their benefits as well as risks among youth and adults have not been well-studied.[4]

In recent years, there has been an explosion in the popularity of e-cigarettes. Created in China, e-cigarettes became readily available internationally in 2006. Since then, the industry has grown from a few thousand users to several million worldwide. In the United States, retail sales of e-cigarettes doubled from $250 million to $500 million between 2011 and 2012, and sales are expected to quadruple by 2014.[5-6]

Of particular concern is the rapid rise in use among youth. According to the Centers for Disease Control and Prevention (CDC), the percentage of high-school students in the U.S. who had ever used e-cigarettes doubled from 4.7% to 10% between 2011 and 2012. During the same 2-year period, the percentage of middle-school students who had ever used e-cigarettes doubled from 1.4% to 2.7%. In 2011, about 21% of adults who smoked traditional cigarettes had used electronic cigarettes, up from about 10% in 2010.[7-8] This is unfortunate because some tobacco control researchers believe e-cigarettes may be a socially acceptable gateway to nicotine addiction and the renormalization of tobacco use.

E-cigarette Products

E-cigarettes come in many varieties, including e-pens, e-cigars, and e-hookah products. They contain e-cigarette liquid, also known as e-liquid, generally a solution of propylene glycol, vegetable glycerin, and/or polyethylene glycol mixed with concentrated flavors; and a variable concentration of nicotine, including nicotine-free versions. E-liquid is available in a variety of flavors.

Recent studies have identified serious problems associated with the lack of product standards and regulation. Manufacturers do not always accurately label the amount of nicotine in their products. The U.S. Food and Drug Administration (FDA) found that certain cartridges labeled as "No nicotine" actually contained nicotine, and that other cartridges labeled as containing identical amounts of nicotine contained markedly different amounts of nicotine. One study examined 6 brands of products for design, content, quality, and product information, including warnings. Most of the products leaked when handled, creating the potential for dermal nicotine exposure and potential nicotine poisoning.

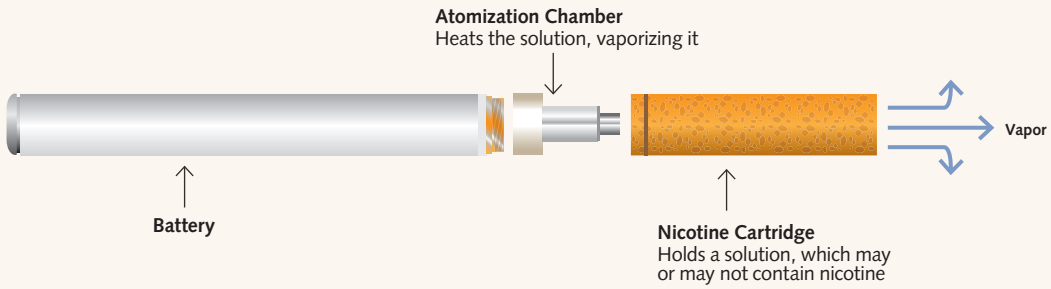
Health and Safety Risks

The rise in consumption of e-cigarettes is very worrisome because early studies indicate these products may not be safe. At least 10 chemicals identified in e-cigarette aerosol (or the vapor) are on California's Proposition 65 list of carcinogens and reproductive toxins.

The compounds that have been identified in e-cigarette aerosol include acetaldehyde, benzene, cadmium, formaldehyde, isoprene, lead, nickel, nicotine, N-nitrosonornicotine, and toluene. Chemicals found in e-cigarette aerosol include metals, such as chromium and tin nanoparticles; tobacco-specific nitrosamines, chemicals known to cause cancer; and diethylene glycol, a substance commonly found in antifreeze.

The concentrations for most of the above elements in e-cigarette aerosol were higher or equal to the corresponding concentrations in conventional cigarette smoke.

Diagram of an Electronic Cigarette



Another health concern is the chronic inhalation of propylene glycol, the main ingredient in e-liquid. Even though propylene glycol is FDA-approved for oral consumption, the inhalation of vaporized nicotine in propylene glycol is not. Short-term exposure causes eye, throat, and airway irritation, and long-term exposure can result in children developing asthma. Some studies show that heating propylene glycol changes its chemical composition, producing small amounts of propylene oxide, a known carcinogen.

Nicotine toxicity is a significant health concern, given reports of accidental poisonings from e-cigarette products on the rise, particularly among children. E-cigarette-related calls to poison control centers tripled between 2012 and 2013, and the number of poisonings jumped to 1,351 in 2013, a 300% increase from 2012. The CDC reported a dramatic rise in the number of e-cigarette-related phone calls to poison control centers, from just 1 call per month on average in 2010 to nearly 200 calls per month in early 2014. More than 50% of the calls involved children aged 5 and under.

Signs of Nicotine Toxicity

Liquid nicotine is far more dangerous than that found in other tobacco products because it is absorbed more quickly. Toxicologists identify potential dangers of e-liquids because of their neurotoxicity and ability to be lethally absorbed quickly through the skin.

Health care providers should be familiar with signs and symptoms related to nicotine toxicity. Mild symptoms include nausea, vomiting, dizziness, drowsiness, increased heart rate, and increased blood pressure. More severe symptoms include seizures, decreased heart rate, and decreased blood pressure.

Symptoms from skin or eye exposure include irritation, redness, severe pain, and inflammation, and may result in whole-body toxicity.

Recommendations

Given the unknown public health impact and the current lack of regulation, the Los Angeles County Department of Public Health recommends a precautionary approach regarding the use of e-cigarettes until further research is available. The CDC, along with other health agencies, recommend that health care providers consider the following actions:

- Be well-informed and vigilant that e-cigarettes have the potential to cause acute adverse health effects and represent an emerging public health concern.
- Inform patients of potential dangers of e-cigarettes and encourage parents to talk to their children and to discourage use. Advise patients to keep e-cigarettes out of reach of children, preferably locked in a secure place.
- Inform patients that e-cigarettes have not been approved by the FDA as a quit-smoking aid. Encourage the use of FDA-approved smoking-cessation medication among patients who want to quit. Additional information on strategies and support for quitting smoking can be found online at www.LAQuits.com or by calling 1-800-NO-BUTTS.

Update

At press time, the FDA proposed rules to strictly regulate electronic cigarettes, cigars, pipe tobacco, nicotine gels, water pipe tobacco, and hookahs. After a 75-day public comment period (starting April 25, 2014), the proposed rules include the following:

- Setting the age limit to buy the products to be at least 18 years (states can set it higher)
- Health warnings required on all products
- Sale of the products in vending machines would be prohibited
- Manufacturers would be required to register all of their products and ingredients with the FDA
- Manufacturers would only be able to market new products after an FDA review
- Manufacturers would need to provide scientific evidence before making any claims of risk reduction tied to use of their product. ℞

Susan Bradshaw, MD, MPH, ABIHM, is a Physician Specialist, and **Tonya Gorham Gallow**, MSW, is Director, Tobacco Control and Prevention Program, Los Angeles County Department of Public Health.

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1. Tobacco Fact Sheet–Electronic Cigarettes (E-Cigarettes). (June 2013). American Legacy Foundation. Retrieved from: http://www.legacyforhealth.org/content/download/ 582/6926/file/LEG-Fact-Sheet-eCigarettes-JUNE2013.pdf.

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3. E-Cigarettes [fact sheet]. (Oct 2013). American Academy of Pediatrics–Julius B. Richmond Center of Excellence. Retrieved from: http://www2.aap.org/richmondcenter/ pdfs/ECigarette_handout.pdf.

4. Food and Drug Administration. News and events—electronic cigarettes (e-cigarettes). Silver Spring, Maryland: US Department of Health and Human Services, Food and Drug Administration; 2014. Available at http://www.fda.gov/newsevents/publichealthfocus/ucm172906.htm.

5. Herzog B.E- Cigs Revolutionizing The Tobacco Industry; Wells Fargo Security Equity Research, June 12, 2013. (Email Correspondence).

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7. Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report: Notes from the Field: Electronic Cigarette Use Among Middle and High School Students – United States, 2011-2012. *MMWR* 2013;62:p729-830.

8. Centers for Disease Control and Prevention. Press Release: About one in five U.S. adult cigarette smokers have tried an electronic cigarette. CDC. 28 February 2013. Available at: http://www.cdc.gov/media/releases/2013/ p0228_electronic_cigarettes.html.

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Rx for Prevention

Promoting health through prevention in Los Angeles County

Upcoming Training

Immunization Training:
2014 Adult Immunization Schedule

The Los Angeles County Department of Public Health Immunization Program is offering a 2-hour CEU training titled "2014 Adult Immunization Schedule" at no charge to providers. Topics include adult immunization schedule updates and recommendations for vaccinating medically high-risk adults and health care personnel.

To register or learn more about other trainings sponsored by the Immunization Program, visit **www.publichealth.lacounty.gov/ip/trainconf.htm or** call (213) 351-7800.

County of Los Angeles Public Health

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Comments or Suggestions? If so, or if you would like to suggest a topic for a future issue, e-mail Dr. Jeffrey Gunzenhauser, co-editor, at jgunzenhauser@ph.lacounty.gov.

Index of Disease Reporting Forms

All case reporting forms from the LA County Department of Public Health are available by telephone or Internet.

Reportable Diseases & Conditions Confidential Morbidity Report
Morbidity Unit **(888) 397-3993**
Acute Communicable Disease Control **(213) 240-7941**
www.publichealth.lacounty.gov/acd/reports/CMR-H-794.pdf

Sexually Transmitted Disease Confidential Morbidity Report
(213) 744-3070
www.publichealth.lacounty.gov/dhsp/ReportCase.htm (web page)
www.publichealth.lacounty.gov/dhsp/ReportCase/STD_CMR.pdf (form)

Adult HIV/AIDS Case Report Form
For patients over 13 years of age at time of diagnosis
Division of HIV and STD Programs **(213) 351-8196**
www.publichealth.lacounty.gov/dhsp/ReportCase.htm

Pediatric HIV/AIDS Case Report Form
For patients less than 13 years of age at time of diagnosis
Pediatric AIDS Surveillance Program **(213) 351-8153**
Must first call program before reporting
www.publichealth.lacounty.gov/dhsp/ReportCase.htm

Tuberculosis Suspects & Cases Confidential Morbidity Report
Tuberculosis Control **(213) 745-0800**
www.publichealth.lacounty.gov/tb/forms/cmr.pdf

Lead Reporting
No reporting form. Reports are taken over the phone.
Lead Program **(323) 869-7195**

Animal Bite Report Form
Veterinary Public Health **(877) 747-2243**
www.publichealth.lacounty.gov/vet/biteintro.htm

Animal Diseases and Syndrome Report Form
Veterinary Public Health **(877) 747-2243**
www.publichealth.lacounty.gov/vet/disintro.htm