April 3, 2020

Guidance for Certifying COVID-19 Deaths

The National Vital Statistics System (NCHS) has released a guidance for certifying deaths due to Coronavirus Disease 2019 (COVID-19) at https://www.cdc.gov/nchs/data/nvss/vsrg/vsrg03-508.pdf. Coronavirus Disease 2019 or COVID-19 should be reported on the death certificate for all decedents where the disease caused or is assumed to have caused or contributed to death. Specification of the casual pathway leading to death in Part I of the certificate is also important. For example, in cases when COVID-19 causes pneumonia and fatal respiratory distress, both pneumonia and respiratory distress should be included along with COVID-19 in Part I. Certifiers should include as much detail as possible based on their knowledge of the case, medical records, laboratory testing, etc. If the decedent had other chronic conditions such as COPD or asthma that may have contributed, these conditions can be reported in Part II. Below are several examples.

Scenario I: A 77-year-old male a 10-year history of hypertension and chronic obstructive pulmonary disease (COPD) presented to a local emergency department complaining of 4 days of fever, cough, and increasing shortness of breath. He reported recent exposure to a neighbor with flu-like symptoms. He stated that his wheezing was not improving with his usual bronchodilator therapy. Upon examination, he was febrile, hypoxic, and in moderate respiratory distress. His chest x-ray demonstrated hyperinflation and his arterial blood gas was consistent with severe respiratory acidosis. Testing of respiratory specimens indicated COVID–19. He was admitted to the ICU and despite aggressive treatment, he developed worsening respiratory acidosis and sustained a cardiac arrest on day 3 of admission.
Comment: In this case, the acute respiratory acidosis was the immediate cause of death, so it was reported on line a. Acute respiratory acidosis was precipitated by the COVID–19 infection, which was reported below it on line b. in Part I. The COPD and hypertension were contributing causes but were not a part of the causal sequence in Part I, so those conditions were reported in Part II.

Scenario II: A 34-year-old female with no significant past medical history presented to her primary physician complaining of 6 days of fever, cough, and myalgias. She found to be febrile, hypotensive, and hypoxic. She was admitted to the hospital and underwent a CT scan of the chest, which revealed diffuse ground-glass opacification indicative of viral pneumonia. Respiratory specimens were sent for testing and rRT-PCR confirmed COVID-19. Her condition deteriorated over the next 2 days and she developed acute respiratory distress syndrome. She was transferred to the ICU and started on positive pressure ventilation. Despite aggressive resuscitation, the patient expired on hospital day 4.

Comment: In this case, the immediate cause of death was acute respiratory distress syndrome, so it was reported on line a. as a consequence of pneumonia which was reported on line b. The underlying cause was COVDI-19 so it was reported on line c., the lowest line in Part 1.

For more general guidance and training on cause-of-death reporting, certifiers can be referred to the Cause of Death mobile app available through https://www.cdc.gov/nchs/nvss/mobile-app.htm and the Improving Cause of Death Reporting online training module, which can be found at https://www.cdc.gov/nchs/nvss/improving_cause_of_death_reporting.htm.