Description Ms. X., aged 55 years, has been complaining of severe fatigue and “indigestion.” Her son is quite concerned and decides to take her to the emergency department. On arrival she appears very anxious, and her facial skin is cool and clammy; her blood pressure is 90/60, and the pulse is around 90, weak, and irregular. She is given oxygen, an intravenous line is opened, and leads for ECG are attached. Blood is taken for determination of serum enzymes and electrolytes. Tentative diagnosis is myocardial infarction involving the left ventricle. Her son provides information that indicates Ms. X is a long-time smoker, has a stressful job as a high school teacher, is recently separated after 20 years of marriage, and is fearful of losing the family home. She has also seemed to be more fatigued and stopped going to the gym about 18 months ago. She has begun to rely on “fast foods” like pizza and fried chicken and cooks infrequently. Her father had died of a heart attack at age 50. She had also noticed more fatigue and intermittent leg pain when walking or climbing stairs at work. Generalized atherosclerosis is suspected. 1.List the high-risk factors for atherosclerosis in this patient’s history. 2.Describe how atherosclerosis causes myocardial infarction. 3.It is suspected that the indigestion reported in the history was really angina. 4.Explain how this pain may have occurred. 5.Explain each of the admitting signs. 6.What is “atypical” in Ms. X’s symptoms? How does this affect treatment and prognosis? 7.What information do serum enzyme and electrolyte levels provide? 8.What purpose does the ECG serve? It is determined that Ms. X. has a large infarct in the anterior left ventricle. 9.Ms. X. is showing increasing PVCs on the ECG. State the cause and describe the effect if these continue to increase in frequency. 10.On day 6 after admission Ms. X is preparing to go home with her son and they receive instructions on lifestyle modifications that are desirable if Ms. X is to avoid another MI. What measures should be included in such a discussion? 11.Discuss how stress could have played a factor in Ms. X’s MI and her future post discharge. 12.Ms. X’s condition becomes less stable and she remains in the hospital. On the seventh day following admission, she is found unconscious on the floor of her bathroom. Her pulse is weak and elevated, and her skin is moist with pallor evident. Her BP is 50 systolic. A diagnosis of cardiogenic shock is made, and resuscitation efforts are started. 13.Explain why Ms. X. has experienced cardiogenic shock at this time. 14.Describe the effects of cardiogenic shock on the organs of the body. 15.What problems will occur if decompensated shock occurs? How is compensation limited in this situation? 16.Ms. X dies shortly later. What is the cause of death in this case?