Respiratory System: Case Study 1 Mr. F, age 46 years, has had a persistent unproductive cough for several months that did not respond to cough medications. Recently, he has developed a productive cough accompanied by fatigue, anorexia, and night sweats. Examination indicated abnormal chest sounds and weight loss. A chest radiograph showed a small cavity and infiltrate, the tuberculin test was positive, and the sputum sample contained a small amount of blood and numerous acid-fast bacilli, confirming the diagnosis of active tuberculosis. Discussion Questions Discuss the pathologic changes occurring during the development of active tuberculosis. (See Tuberculosis.) Discuss the transmission of TB and the conditions predisposing to the development of TB. (See Tuberculosis—Diagnostic Tests.) Discuss the treatment of tuberculosis and the precautions involved for health care personnel coming into contact with the patient. (See Tuberculosis—Treatment.) Suggest how family members or co-workers can protect themselves. Case Study 2 Sammy, age 3 years, ate his dinner and then said his tummy hurt. His mother suggested he lie down in the adjacent room while his parents finished dinner. A few minutes later, they heard Sammy vomiting. His mother rushed in to lift Sammy up. When vomiting ceased, they noticed Sammy continued to cough and seemed to be choking. He was struggling to breathe and a wheezing sound was obvious. It appeared that he had aspirated some vomitus. His parents drove him to a nearby hospital for examination. Discussion Questions Discuss the specific effects of aspirating vomitus on Sammy, including the probable effects on his bronchi and lungs. Why might one lung be affected more than the other? Discuss the pathophysiologic changes causing the signs and symptoms and any tests required to clarify the effects on Sammy. Suggest some reasons for Sammy’s difficulty breathing and wheezing. Discuss the potential complications of aspiration of vomitus.