*An understanding of the cardiovascular and respiratory systems is a critically important component of disease diagnosis and treatment. This importance is magnified by the fact that these two systems work so closely together. A variety of factors and circumstances that impact the emergence and severity of issues in one system can have a role in the performance of the other.*

*Effective disease analysis often requires an understanding that goes beyond these systems and their capacity to work together. The impact of patient characteristics, as well as racial and ethnic variables, can also have an important impact.*

*An understanding of the symptoms of alterations in cardiovascular and respiratory systems is a critical step in diagnosis and treatment of many diseases. For APRNs this understanding can also help educate patients and guide them through their treatment plans.*

*In this Assignment, you examine a case study and analyze the symptoms presented. You identify the elements that may be factors in the diagnosis, and you explain the implications to patient health.*

***To prepare:***

*By Day 1 of this week, you will be assigned to a specific case study scenario for this Case Study Assignment. Please see the “Course Announcements” section of the classroom for your assignment from your Instructor.*

***Scenario 3:****11-year-old boy complains of wheezing and difficulty “getting enough air.” Notices it more when he is playing baseball and symptoms improve when exercise activity stops. He says that the symptoms are getting worse and the symptoms are even occurring at rest. Mother says the child is allergic to cat dander and his next-door neighbor in their apartment building recently began sheltering cats for the local humane society. Auscultation demonstrates wheezes on forced expiration throughout all lung fields.*

*Assignment (1- to 2-page case study analysis)*

*In your Case Study Analysis related to the scenario provided, explain the following*

* *The cardiovascular and cardiopulmonary pathophysiologic processes that result in the patient presenting these symptoms.*
* *Any racial/ethnic variables that may impact physiological functioning.*
* *How these processes interact to affect the patient.*

*McCance, K. L. & Huether, S. E. (2019). Pathophysiology: The biologic basis for disease in adults and children (8th ed.). St. Louis, MO: Mosby/Elsevier.*