Appendix 4. EXAMPLE of Text with Cases

ANGINA

DESCRIPTION
Symptom complex resulting from mismatch of myocardial oxygen demand and supply
• A sense of choking or of pressure or heaviness deep to the precordium, usually brought on by exertion or anxiety and relieved by rest
• Exertional dyspnea or exertional fatigue, which results from myocardial ischemia and is relieved by rest or nitroglycerin

The chest discomfort of myocardial ischemia is a visceral discomfort that is usually described as a heaviness, pressure, or squeezing. Other common adjectives for anginal pain are burning and aching. Some patients deny any "pain" but may admit to dyspnea or a vague sense of anxiety. The word "sharp" is sometimes used by patients to describe intensity rather than quality.

The location of angina is usually substernal; most patients do not localize the pain to any small area. The discomfort may radiate to the neck, jaw, teeth, arms, or shoulders, reflecting the common origin in the posterior horn of the spinal cord of sensory neurons supplying the heart and these areas. Some patients present with aching in sites of radiated pain as their only symptoms of ischemia. Occasional patients report epigastric distress with ischemic episodes. Less common is radiation to below the umbilicus or to the back.

Stable angina usually develops gradually with exertion, emotional excitement, or after heavy meals. Rest or treatment with sublingual nitroglycerin typically leads to relief within several minutes. In contrast, pain that is fleeting (lasting only a few seconds) is rarely ischemic in origin. Similarly, pain that lasts for several hours is unlikely to represent angina, particularly if the patient's electrocardiogram does not show evidence of ischemia.

Anginal episodes can be precipitated by any physiologic or psychological stress that induces tachycardia. Most myocardial perfusion occurs during diastole, when there is minimal pressure opposing coronary artery flow from within the left ventricle. Since tachycardia decreases the percentage of the time in which the heart is in diastole, it decreases myocardial perfusion.

EPIDEMIOLOGY
• Predominant age: Most common in middle-aged and older men, postmenopausal women
• Predominant sex: Male > female

RISK FACTORS
• Family history of premature coronary artery disease (CAD)
• Hypercholesterolemia
• Hypertension
• Tobacco abuse
• Diabetes mellitus
• Male gender
• Advanced age
• Morbid obesity
• Hyperhomocysteinemia (possibly)
SIGNS AND SYMPTOMS
• Precordial pressure or heaviness, radiating to the back, neck, or arms, brought on by exertion, emotional stress, meals, cold air, or smoking, and relieved by rest or nitrates
• Discomfort may radiate to the neck, lower jaw, teeth, shoulders, and inner aspects of the arms or back.
• Discomfort may be described with a clenched fist over the sternum (Levine's sign).
• Dyspnea on exertion may present as the only symptom.
• A choking sensation on exertion is a classic symptom.
• Atypical symptoms more likely in women, elderly, and diabetic patients.

Example case for Angina
(No case examples were provided in the text only control condition.)

1. HX: A 61 year old male presents with a chief complaint of chest pain described as gradual in onset. The patient states that it occurred at the supermarket, was present about 3 minutes and has not returned. The discomfort is described as like a weight on the chest. The patient describes the location as left precordial. There was no radiation. Associated findings: unremarkable. Factors affecting the pain: rest seemed to alleviate the discomfort. No risk factors are noted.

   PE: Respiratory findings: unremarkable. Cardiovascular findings: unremarkable. Abdominal findings are unremarkable. Extremity findings are unremarkable. Musculoskeletal findings: unremarkable. Dermal findings are unremarkable.