**MEA2203 Module 01 Case Study Assignment**

**Patient Name:**Jack Xiu

**Date of Birth:** 12/31/1959

**Clinical Notes:**Patient presents with left hip, left leg, and left wrist pain. Mr. Xiu reports that he slipped on an icy surface as he stepped out of his vehicle. He fell backward and landed on his left hip. He also reports that he hit his wrist and hand on the edge of his car door as he attempted to brace himself during the fall.

Visual examination of his wrist reveals significant redness and swelling.

Range of motion in the left wrist is limited to10 degrees without pain and 20 degrees with moderate pain.

Mr. Xiu’s provider suspects that he has sprained his wrist.

**Question #1:**Briefly explain why his wrist appears red and swollen. Explain the pathophysiology of what is causing the redness and swelling.

Click or tap here to enter text.

**Question #2:**List and briefly explain two **diagnostic** procedures that may be relevant for this patient.

Click or tap here to enter text.

**Question #3:**How might NSAIDs help Mr. Xiu?

Click or tap here to enter text.

**Question #4:**Explain why collagen, present during the healing process, will be important during the healing of Mr. Xiu’s wrist.

Click or tap here to enter text.

**Question #5:**Explain how the **pain** Mr. Xiu is feeling is acting as a defense mechanism.

Click or tap here to enter text.

**Patient Name:** January Jones

**Date of Birth:** 2/29/1980

**Clinical Notes:**Patient presents to the urgent care clinic with a deep cut on the palmar surface of her left hand and thumb. She reports that she was cutting vegetables with a large chef’s knife, when her left hand slipped under knife blade. She reports that the wound bled immensely for several minutes. She wrapped her hand and thumb tightly in gauze and immediately left home to seek care.

Visual examination reveals that the entire thickness of the epidermis and dermis has been lacerated. The area is red and swollen, but bleeding has stopped.

Sutures are recommended to close the wound and reduce scarring.

**Question #1:**Explain why Ms. Jones’ wound has stopped bleeding, even though it has not yet healed. Explain the pathophysiology of what has happened in the body.

Click or tap here to enter text.

**Question #2:**If there were bacteria on the knife she was using, which types of leukocytes will respond to this injury and how will they respond?

Click or tap here to enter text.

**Question #3:**Explain how her lymphatic system will assist the immune response to any pathogens that have entered her open wound.

Click or tap here to enter text.

**Question #4:**There are four types of acquired immunity. Assuming that a pathogen has entered the open wound, which type of immunity will Ms. Jones’ acquire? Explain your answer.

Click or tap here to enter text.

**Question #5:**Briefly explain why angiogenesis so important during the proliferative phase of wound healing.

Click or tap here to enter text.

**Patient Name:**Ricky Squire

**Date of Birth:**5/21/1991

**Clinical Notes:**Patient reports falling during a hike last weekend during a camping trip. He scraped his right knee on a sharp branch, creating an open wound. Initially, the skin around the wound was red. He reports that he had no first aid care until he returned home on Monday. He applied a topical antibiotic, but by that time, the area surrounding his knee was swollen and moderately painful. Upon physical examination, decreased range of motion in the right knee is noted.

**Question #1:**Explain how Mr. Squire’s *first line of defense*failed to adequately respond to his injury.

Click or tap here to enter text.

**Question #2:**Explain how the process of phagocytosis occurs and how is benefitting Mr. Squire.

Click or tap here to enter text.

**Question #3:**Which of the cardinal signs of inflammation are present **in this case**? List **and** explain each sign.

Click or tap here to enter text.

**Question #4:**Mr. Squire’s healthcare provider recommends over-the-counter NSAIDs and prescription oral antibiotics. How will each of these drugs benefit the patient?

Click or tap here to enter text.

**Question #5:**What complications may occur if Mr. Squire does not follow the recommended treatment?

Click or tap here to enter text.