Meet the Client: Susan WeilSusan Weil is a 76-year-old widowed female who lives alone in a subsidized apartment building for older adults on a fixed income. She has two grown children, a daughter and a son, who live nearby and visit often. She enjoys caring for her two grandchildren 3 days a week. Susan has a history of hypertension and osteoporosis. She has also had osteoarthritis for the last 10 years and takes one naproxen each day to manage her arthritic pain. Lately, the joint pain of her right knee has worsened making it difficult for her to care for her grandchildren.

Susan visits her primary healthcare provider (HCP). The nurse reviews Susan’s electronic health record and notes her history of hypertension, osteoporosis, and osteoarthritis and her current medication regimen.

The nurse understands that which information is correct about osteoarthritis?

A noninflammatory condition involving formation of new joint tissue in response to cartilage destruction.

The nurse expects to see which manifestations of osteoarthritis in Mrs. Weil?

Swollen nodes of the joints.

Asymmetrical involvement of the joints.

Which symptom should Mrs. Weil report immediately while taking a non-steroidal anti-inflammatory drug (NSAID)?

Black, tarry stools.

When the nurse is teaching Susan about medications for osteoporosis, which instruction is most important, knowing that Susan takes alendronate (Fosamax), a biphosphonate?

Remain upright (sitting or standing) for at least 30 minutes after taking this medication.

The nurse escorts Susan to an examination room and obtains the following information.

Height 62” (157.48 cm)  
Weight 120 lbs (54.4 kg) (BMI 21.9)  
HR 84  
BP 130/72  
RR 16  
T 98.8°F (37.1°C)  
Reports right knee pain 7 on scale of 1 to 10  
Uses heat and cold applications to help relieve knee pain and stiffness.

Which statement about the use of heat and cold for osteoarthritis pain by the client is of most concern to the nurse?

“I wrap the heating pad around my knee and use an extension cord so I can walk around the house.”

Which data places the client at highest risk for falls?

Knee pain.

The nurse understands that as the number of high-risk criteria increases, the client’s risk for falls increases. The HCP completes a history and physical examination of Susan and prescribes hydrocodone (Hycodan), an oral prn narcotic, for Susan's knee pain, which also increases the risk for falls.

Tuesday afternoon, Susan is going to dinner with friends and she falls off of a lower step to her apartment. She experiences severe hip pain. Susan's daughter calls 911 and Susan is taken to the hospital via ambulance. Susan tells the admitting nurse that she was in a hurry and lost her balance. “It is so painful,” she states. X-ray confirms right subcapital hip fracture, and Susan is waiting for a bed on the medical-surgical unit and a scheduled hemiarthroplasty.

Which clinical manifestation(s) of the affected extremity should the nurse practicing in the emergency department expect?

External rotation. Shortening. Muscle spasms.

Morphine sulfate 4 mg IV push is administered to Susan for reported pain of 10 on a scale of 1-10. The nurse reviews the prescriptions and places Susan on bedrest and NPO status. Neurovascular checks every 30 minutes has been added to Susan’s plan of care.

The affected extremity should be assessed for which of the following when neurovascular checks are performed?

Color. Temperature. Sensation.

The nurse performs neurovascular checks and notes pallor and absent pedal pulses to the right foot. These findings are reported to the emergency department physician immediately. The physician suspects that Susan may have compartment syndrome and notifies the orthopedic surgeon.

Susan is scheduled for emergency surgery to relieve the compartment syndrome and repair the right hip fracture.

What is the priority action in preparation for Susan’s surgery?

Draw blood for type and cross match.

Susan remains groggy from the morphine administered earlier, and she is unable to sign an informed consent. The surgeon explains the need for emergency surgery and its associated risks and complications to Susan’s daughter, who agrees to sign the consent.

The nurse quickly completes the preoperative checklist and prepares Susan Weil for emergency surgery. Susan is transported to the operating room. Immediately prior to the procedure, the OR team performs a time out.

After surgery, Susan is admitted to the surgical unit with a diagnosis of status post fasciotomy and repair of the right femoral neck with internal fixation.

Susan Weil arrives from the OR with an IV of normal saline (NS) in her right forearm flowing at 100 mL per hour on blood transfusion tubing. She had an estimated blood loss of 750 mL during surgery, and she received two units of packed red blood cells (PRBCs) in the OR. She was given cefazolin (Ancef) 2 g at the start of the procedure and again 6 hours later. She has an indwelling urinary catheter, which has 500 mL of urine in the bag. A surgical dressing to her left hip is dry, clean, and intact. Upon arrival to the surgical unit, Susan is moaning with her eyes closed.

As the nurse assistant obtains vital signs, the nurse reviews the post-operative prescriptions. Vital signs are P 90, BP 140/82, R 16, T 96.0°F (35.5°C), and 02 Sat 90%.

The blood bank calls with the news that Ms. Weil’s third unit of blood (PRBCs) is ready.

Fifteen minutes after the PRBCs are started, Susan reports headache and has tachypnea and chills. Her blood pressure is 88/52, and she has a temperature of 101.9°F (38.8°C).

In order for Surgical Care Improvement Project (SCIP) guidelines to be met, Mrs. Weil should be given antibiotics postoperatively, with the last dose administered before the surgery end time the following day. (For example, if the surgery is completed Tuesday at noon, the client will receive antibiotics as scheduled, but not after noon on Wednesday.) The anesthesia report documents cefazolin (Ancef) 2 g given at 1900 and 0100 during the procedure. The surgery end time is 0230 on Wednesday.

Although she is groggy, Susan opens her eyes to the nurse’s voice and is able to state her own name. Later that evening, Susan is able to sit on the side of the bed and perform range of motion exercises. Her pain is controlled with IV morphine. The next morning, another nurse is assigned to care for Susan for the 7 am to 7 pm shift.

The nurse prepares to administer enoxaparin (Lovenox) to Susan. Susan’s daughter, who remained at Susan's bedside throughout the night, asks the purpose of this medication.

**Skin Care**

The nurse prepares to implement skin care after Susan returns to bed after her morning physical therapy. The nurse removes Susan’s antiembolism stocking and sequential compression devices (SCDs) prior to examining the skin.

The nurse notifies the charge nurse of the red, warm, and edematous left leg and prepares to place a call to the surgeon.

While the nurse is awaiting the return call from the physician, Susan complains of sudden shortness of breath and chest pain.

Susan is transferred to the ICU where she is treated with a heparin drip. She becomes very short of breath with activity, and she is kept on bedrest. She is eventually taken to surgery for placement of an Ekosonic endovascular system for catheter-directed thrombolysis (EKOS) of her left pulmonary embolism. The catheter is kept in place for 8 hours before removal by the acute care nurse practitioner (ACNP).

After the catheter is removed, Susan calls the nurse with a complaint of feeling dizzy. The nurse finds that the client's vital signs are BP 82/56 and HR 62 bpm. When the nurse inspects the catheter site, the nurse observes a large area of blood on the sheets, and active bleeding coming from under the groin-site dressing.

After the surgical procedure for the pulmonary embolism, Susan undergoes the same EKOS procedure for her right DVT. When the blood clots are cleared, she is started on enoxaparin (Lovenox) 1 mg/kg and warfarin (Coumadin) therapy.

Susan asks the nurse why she is receiving two medications to prevent clots.

Susan is transferred back to the surgical floor. The next morning, the nurse reviews Susan’s morning laboratory data and her medication list.

The nurse and the charge nurse assess Susan for signs and symptoms of internal or external bleeding and none are noted. The HCP is notified of the INR level.

Susan continues with physical therapy treatments, and she is walking with the assistance of a rolling walker while supervised by a member of the healthcare team. Within 2 days, Susan's INR reaches a therapeutic level, and she experiences no further complications. Susan is transferred to a rehabilitation center for continuation of care.

Susan works diligently to regain her strength during the rehabilitation process and she is anxious to get back home. Susan's daughter is worried about Susan’s mobility because Susan is still using a walker. She asks the nurse how Susan will be able to cook meals for herself when she needs a walker to ambulate.

After four weeks in rehabilitation, Susan prepares to return home. She continues to take warfarin (Coumadin), but the naproxen (Aleve) for her osteoarthritis was discontinued because of possible drug-to-drug interaction with warfarin (Coumadin). She is prescribed acetaminophen 500 mg capsule every 6 hrs prn not to exceed 2000 mg in 24 hours.

Susan is determined to be well enough to go back home to her apartment. She desires to live independently, but she is worried about falling again. Her daughter works full time but is available to visit Susan every morning and evening.

Susan is discharged from the rehabilitation center. A home health nurse visits Susan to perform a safety assessment of her apartment and helps Susan secure appropriate adaptive equipment and an emergency alert system.