SOAP TWO: CELLULITIS

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Adult/Gerontology Clinical Nurse Specialist I: Introduction to Practice

NURS 639

Professor Sharp

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**Subjective Data**

**Chief Complaint**: “My arm is huge and hot and sore and swollen”.

**History of Present Illness**: (Note: the date of this visit was 3/16/15). Patient has an onset of swelling of right upper arm following removal of IV from arm 48 hours ago. Patient had gastric sleeve surgery on 3/11/2015. Patient also reports two bouts of vomiting since surgery.

**Past Medical History**: Obesity, Diabetes, Dysfunctional Uterine Bleeding, Anxiety/Depression/Panic disorder, Chest pain, Fatigue, Palpitations, Joint pain, Migraine, Insomnia, Diverticulitis of colon (without mention of hemorrhage), Herpes zoster.

Hospital: ED: 7/20/14 Fever, Pharyngitis

Surgical History: C-section; Tonsillectomy and Adenoidectomy; Gastric sleeve bariatric surgery.

OB: Pregnancy: 1; Living Children: 1

**Current Medications**:

Celexa 20 mg tablet; 2 tabs taken once per day for depression

Mononessa 0.25-35 mg-mcg tablet, 1 tab once per day for birth control

Metformin 1000 mg tablet, 1 tablet once per day with meals for diabetes mellitus II Omeprazole 20 mg capsule delayed release once per day for GERD

**Allergies**: Adhesive tape causes hives.

 Medication Allergy: Codeine causes vomiting. Sulfathiazole causes hives.

**Drugs/Alcohol/Tobacco**: Denies tobacco and drugs, alcohol cessation following gastric sleeve surgery.

**Family History**: Father living. Overweight, diabetes, hypertension. Mother living. Overweight, hypertension, negative for diabetes. Has older brother who smokes, no other known issues. Younger sister, also overweight, non-smoker occasional drinker, no other known issues.

**Social History**: The patient was working part-time as a school teacher; she has not worked since the fall of 2014 due to raising a child, obesity, and fatigue. The patient is married; her husband works in general construction. The patient states she has a strong social support network; she maintains strong relationships with family and friends that she has known since childhood. “We all grew up together”, nobody leaves Chino Valley. Attends church regularly.

**Review of Systems:**

Skin: Denies rash, eczema, psoriasis. Positive for cellulitis.

Lymph nodes: Denies pain/swelling.

Musculoskeletal: Positive for joint pain in shoulders, neck, knees, back. Denies muscular pain or weakness.

Endocrine: Admits diabetes diagnosis. Denies sensitivity to cold or heat.

Head: Denies pain, headache

Eyes: Denies vision loss, denies ocular pain.

Ears: Denies hearing changes, tinnitus

Nose: Denies discharge or bleeding.

Mouth/Throat: Denies sores, pain, or problems with voice.

Neck: Denies nodes, pain, or swelling.

Respiratory: Positive for shortness of breath (exertional), positive for nighttime breathing difficulty, denies asthma, other respiratory deficits (cough), no pain.

Cardiovascular: Admits fatigue on exertion, Denies pain, hypotension, hypertension, denies daytime dyspnea, murmurs, or arrhythmia.

GI: Positive for Gastric sleeve.

Genitourinary: Not taken

**Objective Data**

**General Appearance**: Patent is an appropriately dressed, 35 year old female patient with observable anxiety and exhibits facial signs of pain. Polite and conversational. Mood and affect are appropriate to the situation. Notably obese, fullness around midriff, with considerable adipose on upper and lower extremities.

**Vital signs**: Blood pressure 108/70 measured seated, left brachial. Pulse: 100 bpm. Respirations, 14 per minute. SpO2: 96% room air. Temperature: 98.7, taken sublingually. Height 62 in. (5ft., 2 in), Weight, 242 lbs., BMI 44.81 (Morbidly obese)

**Skin:** Warm and dry. Membranes are pink and moist. No rashes, no eczema, psoriasis.

**HEENT**:

Head: atraumatic

Eyes: Sclera are white, eyelids are symmetrical, conjunctiva are pink. Fundus observed with panoptic scope – intact. Eyes PERRLA.

Ears: Symmetrical bilaterally; Tympanic membranes intact; unremarkable

Nose: Nares patent bilaterally; mucosa is pink and moist. Tissues intact.

Mouth: Mucosa are pink and moist. 3-4 fillings in molars upper and lower

Throat: Unremarkable, Tonsillectomy and Adenoidectomy (T & A.)

Neck: No palpable nodes in neck, mandible, or clavicular areas. Thyroid not palpable.

Chest and Lungs: Chest symmetrical; even rise and fall, no distress. Breathing unlabored, lungs clear upon auscultation.

Cardiac: S1, S2 detected. No murmurs. Steady rhythm. Good bilateral pulse.

Neurological: Cranial nerves check revealed no deficits

Musculoskeletal: Not performed

GI: Bowel sounds 4 Q. Visible pinpoint scarring from laparoscopic surgery. No swelling at sites.

GU: Not performed

**Assessment**

Diagnosis – Cellulitis (ICD-9 682.3) of upper right arm.

The patient presents with the four cardinal signs of infection: erythema, pain, swelling, and warmth (Herchline, Bronze, Swaminathan, & Chandrasekar, 2014). She does not exhibit the signs of more severe infection – malaise, chills, fever, streaking, disproportionate pain. The presentation therefore looks to be early onset infection (Herchline et al., 2014). The patient’s surgical history reveals the likely point of origin for the infection to be the location of the IV the patient received.

Differentials:

Erysipelas: Erysipelas presents similarly to cellulitis; the difference in appearance of erysipelas is its sharply demarcated and raised border. Erysipelas can spread rapidly through lymphoid tissue, and is accompanied by fever in excess of 102 degrees (Abyad, 2008, p. 448). The presentation of the patient differs from erysipelas. Treatment for cellulitis is effective for erysipelas, though penicillin G is first line treatment vs. clindamycin in the current case.

Erythema Multiforme: Erythema Multiforme presents as a rash which quickly form into lesions (Herchline et al., 2014). Flu-like symptoms precipitate the rash and lesions; additionally, diarrhea may be present (Herchline et al., 2014). This presentation differs from that of the patient.

Fasciitis: Necrotizing fasciitis is a rapidly progressive inflammatory infection of the fascia, with secondary necrosis of the subcutaneous tissues (Edlich, 2014). It can be idiopathic, or it can arise from a variety of illnesses and medical procedures (Edlich, 2014). Necrotizing Fasciitis is differentiated from cellulitis in its presentation, which is intense pain out of proportion to the visible findings, and a deep, hardened feel to the underlying tissue .

Thrombophlebitis: Thrombophlebitis is a consideration; it can present as the result of a needle stick, or an IV. The phlebitis will track in a line along the length of the affected vein, differentiating it from cellulitis (Rosh, 2014).

**Plan of Care**

Plan of care for this patient requires intervention to resolve chief complaint, and also to help the patient manage her recovery from recent bariatric surgery. The management of the chief complaint (infection) is to elevate the limb, and introduce oral antibiotics. Because the patient has diabetes mellitus, the anti-bacterial of choice is clindamycin (Abyad, 2008). The adult dosage is 300mg by mouth every 6 hours for 5 days. Follow-up after 5 days to monitor clearance of infection. Subsequent monitoring at 90 days and 180 days ensure no recurrence.

Also important is the monitoring and management of post-surgery risks and co-morbidities (Stevens et al., 2014). In this patient they are: Dumping syndrome, Gastro-esophageal reflux disorder (GERD), and vitamin deficiency. Primary care will collaborate with G.I. in monitoring patient diet and exercise regimen as part of post-operative recovery and resolution of chronic obesity. This will involve 90 day follow up visits and checks on the following:

CBC, Electrolytes, platelets, iron, B-12, lipid panel, glucose, and liver studies.

**Nursing Theory Application**

 The Health Belief Model is appropriate for this patient; it addresses problem behaviors that cause health issues (Butts & Rich, 2011, Chapter 11). Its six main constructs deal with the individual’s perceptions of their health, including the severity of their condition, the difficulty of making changes, the benefits of the change, and how that change will help their self-efficacy (Butts & Rich, 2011, Chapter 11). Applied directly to bariatric surgery, one of the constructs, *perceived susceptibility*, directly measures the patient’s vulnerability relating to obesity-related factors of low self-esteem, diabetes, and apnea (Armstrong, Anderson, Le, & Nguyen, 2008). Another construct within the Health Belief Model, *perceived benefits*, measures the beliefs of the patient with respect to the effectiveness of the surgery (Armstrong et al., 2008). The idea is to effect change and create new and healthy lifestyle habits by effectively overcoming barriers to change (Butts & Rich, 2011, Chapter 11).

**Cultural Diversity**

One culture issue for this patient is obesity and depression. Research has shown that Caucasian females, as compared to Hispanic and African-American women, have nearly double the occurrence of clinically diagnosed depression (Hicken et al., 2013). Working within the Health Belief Model framework, follow up appointments should include frank discussions about use of Celexa for management of depression, alongside progress reports of weight loss and diet management.

A second cultural issue for this patient is body image and global self-esteem. Noted author and lecturer Jo Gilmartin writes, “Body image matters are hugely significant and appear to have a lasting effect on emotional well-being and function, contributing to psychological distress and social isolation” (2012, p. 1299). Also, there are three major sub-themes associated with body image ugliness: social marginalization, depression, and sexual dysfunction (Gilmartin, 2012). The sub-themes persist as major obstacles to be overcome; the care plan must encompass “…the patient’s psychodynamic needs [during treatment] and be non-judgmental and accepting” (Gilmartin, 2012, p. 1299).

**Clinical Guidelines**

 Cellulitis Guideline - The Infectious Disease Society of America updated its guideline related to cellulitis in, *Practice Guidelines for the Diagnosis and Management of Skin and Soft Tissue Infections: 2014 Update by the Infectious Diseases Society of America.* (1) Taking of blood culture is not indicated for mild cellulitis (Stevens et al., 2014, p. 15). (2) Treatment of typical cases of cellulitis without systemic signs of infection should receive an antimicrobial agent that is active against Streptococci (Stevens et al., 2014, p. 15). (3) Elevation of the limb is recommended; corticosteroids are contraindicated for patients diagnosed with diabetes (Stevens et al., 2014). (4) Predisposing conditions such as edema, obesity, eczema, and venous insufficiency are to be treated as a part of routine patient care, especially, during the acute stage of cellulitis (Stevens et al., 2014, p. 16). (5) Medication regimen is recommended to be 5 days, “…but treatment should be extended if the infection has not improved within this time period” (Stevens et al., 2014, p. 23).

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