

Lab & Value	Normal Values	Interpretation	Implementation
Lymphocytes (11-L)	20-50 % of WBC's	Based on the history and current condition the most likely cause is <u>chronic infection</u> – I feel it is most likely caused by the colonization the ulcer on his right foot	Monitor for s/s of infection, especially r/t right foot ulcer, including temperature; erythema, edema, ecchymosis, exudates, pain, and approximation of skin edges at the site of suspected infection, as well as increased heart rate. And monitor lab values for improvement or worsening.
Eosinophils (12.4-H)	0-6% of WBC's	Usually increase in response to an allergic or <u>parasitic</u> condition, which I feel can also be explained by the colonization of the ulcer on his right foot	Monitor for s/s of infection, especially r/t right foot ulcer, including temperature; erythema, edema, ecchymosis, exudates, pain, and approximation of skin edges at the site of suspected infection, as well as increased heart rate. And monitor lab values for improvement or worsening.
Red Blood Cell Count (3.48-L)	4.4-6 M/uL	The two most likely causes are chronic infection and <u>anemia</u> , I feel that anemia is more likely d/t his diagnosis and other lab values that will be discussed shortly	Continue with administration of erythropoietin and ferrous sulfate as ordered. Monitor lab values for improvement or decline. Monitor for s/s of anemia (dizziness, fatigue, paleness, tachycardia, weakness, and dyspnea at rest)
Hemoglobin (10.6-L)	14-17 g/dl	Most likely cause is <u>anemia</u> , however continuous dosing of Aspirin can also cause a decrease in hemoglobin	Continue with administration of erythropoietin and ferrous sulfate as ordered. Monitor lab values for improvement or decline. Monitor for s/s of anemia (dizziness, fatigue, paleness, tachycardia, weakness, and dyspnea at rest). Also check hematocrit levels.
Hematocrit (32.2-L)	39-51%	Most likely cause is <u>anemia</u> .	Continue with administration of erythropoietin and ferrous sulfate as ordered. Monitor lab values for improvement or decline. Monitor for s/s of anemia (dizziness, fatigue, paleness, tachycardia, weakness, and dyspnea at rest)
Red Blood Cell Distribution Width (18-H)	11-14.5%	Most likely cause is <u>iron-deficiency anemia</u>	Monitor for s/s of “advanced iron-deficiency anemia (fatigue, pallor, dyspnea on exertion, tachycardia, and headache) as well as s/s of chronic anemia, such as cracked corners of the mouth, smooth tongue, dysphagia, and numbness and tingling of the extremities”
Erythrocyte Sedimentation Rate (ESR) (57-H)	0-20 mm/hr	Most likely causes are Acute Myocardial Infarction (AMI) and <u>bacterial infection</u> . The more likely of the two possible causes is bacterial infection because of the ulcer	Monitor for s/s of infection, especially r/t right foot ulcer, including temperature; erythema, edema, ecchymosis, exudates, pain, and approximation of

		on his right foot with colonization and the previous lab values indicating infection, plus he does not c/o chest pain, diaphoresis, or any other sign/symptom of AMI	skin edges at the site of suspected infection, as well as increased heart rate. And monitor lab values for improvement or worsening.
Blood Glucose (177-H)	70-100 mg/dl	Most common causes are <u>Diabetes Mellitus</u> , infection, Acute Myocardial Infarction, stress, exercise, and CHF. The most likely cause though is Diabetes Mellitus.	Monitor blood glucose levels as ordered and administer insulin/anti-diabetic medications as ordered. Monitor for s/s of hyperglycemia (the 3 P's: polydypsia, polyuria, polyphagia, and weight loss)
Creatinine (Serum and Urine) (2.2-H)	0.4-1.3 mg/dl	Most common causes are acute and <u>chronic</u> renal failure, <u>diabetic nephropathy</u> , CHF, and AMI. Chronic renal failure and diabetic nephropathy are most likely the cause for this patient because as you will see the BUN is also elevated, and when both values are elevated the problem is usually kidney disease.	Monitor urinary output, less than 600ml/24hrs with an elevated creatinine may indicate renal insufficiency. Monitor lab values to compare BUN to serum creatinine, a ration of 10:1 or higher is considered to have a renal based etiology. Limit beef and poultry to decrease the amount of protein in diet.
Blood Urea Nitrogen (BUN) (Serum) (27-H)	6-26 mg/dl	Most common causes are "dehydration, high protein intake, renal insufficiency/failure, <u>kidney disease</u> , AMI, diabetes mellitus". I feel the most likely cause for this patient is kidney disease, because with the creatinine levels elevated and ratio of BUN to creatinine over 10:1. When both levels are elevated it is a very accurate diagnostic of kidney disease	Religiously monitor vital signs q8h, and urine output q8 and 24 hours for low urinary output, which can be indicative of dehydration and/or renal disease. Assess for s/s of dehydration, such as inadequate skin turgor, dry mucous membranes, increased HR, urinary output less than 25 ml/hr, and increased respirations.