Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. 55 year old male with nonischemic cardiomyopathy presents to the ER for worsening dyspnea on exertion and is now symptomatic at rest for the past 2 days. He has noted increased leg swelling for past 7 days despite taking his medications. He has paroxysmal nocturnal dyspnea and 3 pillow orthopnea for the past 5 days. He has no chest pain. His has no medication allergies. He is taking Lasix 40mg daily, carvedilol 12.5 mg bid, and lisinopril 40 mg daily. VS BP 120/80 HR 95 RR 30 SAT 88% on room air. Weight 100 kg. Mild respiratory distress. Sitting upright in bed. Exam JVP 12 cm, lungs rales ½ way up. Heart regular rate, no murmur or rub, S3 is present. He has pitting edema to thighs. CBC and BMP are normal, NT pro BNP is 1000 and high sensitivity troponin is 12. EKG normal sinus rhythm.

Select the correct statement regarding treatment

1. The initial dose of IV furosemide should be equal or greater than the patient’s maintenance total daily dose
2. Bolus diuretic doses more than once a day is usually not necessary
3. Onset of diuresis typically occurs within 60 minutes with peak diuresis at three hours after IV diuretic administration
4. A continuous intravenous infusion should be tried in patients who have not shown response to a maximum intravenous bolus dose
5. The following morning, the patient is reassessed by his primary team. Overnight his dose of furosemide was increased to 80mg IV TID and a nitroglycerin drip was added. Despite these interventions, he is still short of breath. Vitals BP 100/60 HR 90 RR 34 Sat 90% on 4 L NC. I/O are equal. Weight 100kg. He is diaphoretic, skin is cool and clammy. He is in moderate respiratory distress. His exam is otherwise unchanged. CBC is normal BMP normal except creatinine which went from 1.0 to 1.4.

Select the correct statement regarding treatment

1. Start a furosemide infusion
2. Discontinue furosemide and start bumetanide
3. Continue his home carvedilol and lisinopril
4. Start dobutamine
5. Once the patient has been treated for his acute decompensated heart failure and is approaching discharge, the following is true regarding chronic therapy

Select the correct statement regarding treatment

1. The patient can be changed to sacubitril/valsartan in place of his next dose of lisinopril
2. Indications for mineralocorticoid receptor antagonist are NYHA class II and LVEF <=30% or class III-IV with LVEF <35%
3. Consider adding ivabradine if HR >100
4. The following beta blockers have been shown to reduce mortality in HFrEF: carvedilol, metoprolol succinate, bisoprolol, and atenolol