Week 3
Collaboration Café
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Ji-hoon Lee
Kidney Disease Exacerbation and Acute Decompensated Heart Failure

a. **Compare and contrast your assigned client's presentation for each assigned diagnosis. Consider factors such as demographics, onset of symptoms, history of present illness (HPI), and associated risk factors. Include specific factors that contribute to the client's complexity.**

Kidney Disease Exacerbation- Patient states he has been eating more salty foods than usual. Lab work six months ago showed the patient's kidney function was stable.
Decreased urine output, increased fatigue, and confusion. A History of hypertension and diabetes significantly contributes to risk factors for kidney disease. Changes in a patient's mental status can indicate a buildup of toxins in the patient's body because their kidneys are unable to filter waste products properly. The patient's speech is slow, which could be due to fatigue or metabolic changes.

Decompensated Heart Failure- The patient has been sleeping on three pillows and has woken up short of breath, with a history of being hospitalized for heart failure a year ago. He has also stopped taking his lisinopril because he ran out of it and has not been able to afford it. He is not taking his furosemide regularly due to the inability to afford regular refills. The patient's lower extremities are cooler to the touch and have mild cyanosis in the bilateral toes. This can indicate insufficient circulation to the distal extremities due to the heart's inability to pump effectively.

Similarities- In both conditions, fluid overload, weight gain, swelling in legs and ankles can occur. The patient reports a 5–7-pound weight gain over the past week, accompanied by his clothes and shoes becoming tighter. Also, the patient exhibits fatigue and dyspnea, requiring frequent breaks when speaking to regain his breath. Pt has not been taking his furosemide regularly, which contributes to the swelling and weight gain. The patient's inability to consistently take his furosemide and lisinopril due to transportation and financial issues is a significant risk factor for both heart failure and kidney disease exacerbations. Factors contributing to his complexity are transportation and financial instability, making it difficult to rely on the patient to present for appointments and take his medication as prescribed.

b. **Consider the client's primary diagnosis alongside their HPI and physical exam findings. How does the client's medical history complicate and guide the diagnostic process, and what strategies should the FNP use to avoid diagnostic errors? Explain your rationale.**

J.L. is a 66-year-old male presenting with shortness of breath, worsening lower extremity edema, and fatigue over the past two weeks. He has a history of CKD stage 2, type 2 DM, hypertension, and CHF.

His physical exam reveals diminished pedal pulses with +3 bilateral pitting edema that extends up to his mid-shins. There is delayed capillary refill in his lower extremities, along with mild JVD. An increased work of breathing with bibasilar crackles and dullness in the bilateral lower lung fields is noted. O2 sats are only 92% on room air, along with a BP of 162/94, HR 98, RR 22, and a weight of 210lbs, which is a 5-7lb weight gain in one week. Since the patient has a significant past medical history, it is important to thoroughly and accurately diagnose the patient to avoid treatment errors. In the case of J.L., it would be important to obtain blood work, including a CBC, CMP, BNP, and troponin levels, to assess for any organ dysfunction such as kidney function, electrolyte balance, potential for anemia, and cardiac function. An EKG can show if there is additional heart strain and potential for myocardial infarction. A chest X-ray is important to assess for cardiomegaly and pleural effusions.

c. Compare and contrast the management of each assigned diagnosis, including similarities and differences in pharmacologic and non-pharmacologic treatment, client education, referral, and follow-up care. Consider how the client's unique past medical history and social history impact care decisions.

Kidney Disease Exacerbation- chronic kidney disease is defined as the presence of kidney damage or eGFR less than 60 mL/min persisting for more than three months (Vaidya & Aeddula, 2024). The most common causes of CKD include types 1 and 2 diabetes, hypertension, primary glomerulonephritis, chronic tubulointerstitial nephritis, hereditary or cystic diseases, secondary glomerulonephritis or vasculitis, plasma cell dyscrasias or neoplasm, and sickle cell nephropathy (Vaidya & Aeddula, 2024). Medical management of kidney disease includes adjusting drug dosages as needed based on the patient's eGFR levels, and preparing the patient for renal replacement therapy, whether that be hemodialysis or peritoneal dialysis (Vaidya & Aeddula, 2024). Non-pharmacologic treatment includes identifying and treating potentially reversible causes of kidney disease, such as an infection, drugs, hypotension, and hypovolemia (Vaidya &Aeddula, 2024). Blood pressure and glucose management are essential in the management of kidney disease and help to prevent further progression (Viadya & Aeddula, 2024). It is essential to educate the client on their disease process, signs, and symptoms to watch for, which could indicate an increase in their kidney dysfunction. Including swelling of their lower extremities, weight gain, fatigue, and increasing shortness of breath. Patients should be aware of their daily blood pressure and weight, and record them. Dietary education to avoid foods that are high in potassium, the importance of taking their medications, such as diuretics, phosphorus binders, and not missing a dose (Viadys & Aeddula, 2024). Patients with increasing kidney function and other signs and symptoms of kidney dysfunction need to be referred to a nephrologist to determine the staging of kidney failure and management. Urology is also important in determining if the cause of kidney dysfunction is related to an obstructive uropathy that can be reversed (Viadys &