

**NR 565 NP week 5 discussion Endocrine**

# **CPG's Related to Endocrine Disorders**

## **D i s c u s s i o n**

### ***Purpose***

The purpose of the graded collaborative discussions is to engage faculty and students in an interactive dialogue to assist the student in appraising data to improve population health outcomes. Meaningful dialogue among faculty and students fosters the development of a learning community as ideas, perspectives, and knowledge are shared. This discussion will support the professional formation of the nurse practitioner role. (Nevola et al., 2022)

### **Key Points for Documentation / Handoff**

- Diagnosis: Heart failure (with NYHA class if known)
- Medication stopped: Pioglitazone discontinued due to fluid retention risk
- Next steps: Initiating alternative therapy (e.g., SGLT2 inhibitor), monitoring heart function, adjusting diabetes management
- Patient education: Explained rationale, benefits of discontinuation, and alternatives

### ***Course Outcomes***

This assignment enables the student to meet the following course outcomes:

- CO 1: Identify the most commonly prescribed agents in the major drug classes. (POs 1, 2)
- CO 2: Make appropriate evidence-based therapeutic treatment decisions for individual patients utilizing drugs from the major drug classes. (POs 1, 2)
- CO 4: Distinguish internal and external environment factors affecting drug action, reaction, efficacy, and interaction. (POs 1, 2)
- CO 5: Identify client indicators of therapeutic, ineffective, adverse responses and side effects to drug therapy. (POs 1, 2)

## *Due Date*

Initial posts are due to the discussion forum by Wednesday at 11:59 p.m. MT. Instructor and peer responses are due by Sunday at 11:59 p.m. MT. Students must post on a minimum of two separate days. A 10% late penalty will be imposed for discussions posted after the deadline Wednesday at 11:59 p.m. MT, regardless of the number of days late. NOTHING will be accepted after 11:59 p.m. MT on Sunday (i.e., the student will receive an automatic 0).

If a patient with diabetes develops heart failure (HF) while taking pioglitazone, it is essential to address the situation carefully and clearly. I would approach this discussion with a blend of clinical rationale and patient-centered communication, beginning by explaining how pioglitazone works to improve insulin sensitivity. However, an article by Nevola et al. 2022 notes that it is associated with fluid retention, which can exacerbate or trigger heart failure in patients like you who have underlying cardiac dysfunction, potentially causing serious harm. Therefore, it is contraindicated by the New York Heart Association (NYHA) Class III-IV HF. It is not recommended for patients with symptomatic heart failure due to the risk of volume overload.

Expressing concern and empathy is essential for building relationships with patients. Establishing teamwork and effectively managing the disease process are crucial for compliance and identifying the best treatment methods. Therefore, I would have this conversation while seated and include the patient's family support, stating, "I understand managing your diabetes has been a priority, and you've been working hard. But we've now found that your heart is not pumping as strongly as it should—this is called heart failure."

Revealing my concern, "To protect your heart and prevent things from worsening, we must stop pioglitazone now. This will help reduce your risk of swelling, shortness of breath, and hospitalizations."

Presenting alternative care plans: The good news is that other medications are available that can help control your blood sugar and benefit your heart. Nevola et al. 2022, two safe options include SGLT2 inhibitors like empagliflozin or dapagliflozin, which have been shown to improve heart failure outcomes. GLP-1 receptor agonists are also viable if weight loss and cardiovascular risk are concerns. We will choose the best option based on your lab results, kidney function, and other medications.

Closing the conversation by providing an opportunity for questions or concerns, I said, "I'll be here to guide you through the change and monitor how you're doing. Do you have any concerns or questions about switching medications?" After addressing all questions and concerns, I summarized the information we discussed and the plan of care, and I supplied the medication details and the plan in writing.

Reference

Nevola, R., Alfano, M., Pafundi, P., Brin, C., Gragnano, F., Calabrò, P., Adinolfi, L., Rinaldi, L., Sasso, F., & Caturano, A. (2022). Cardiorenal impact of sgl-2 inhibitors: A conceptual revolution in the management of type 2 diabetes, heart failure and chronic kidney disease. *Reviews in Cardiovascular Medicine*, 23(3). <https://doi.org/10.31083/j.rcm2303106>

(CITATION DELETED)

## *Total Points Possible: 50 points*

2023 gina report for asthma. *The Lancet Respiratory Medicine*, 11(7), 589.

[https://doi.org/10.1016/s2213-2600\(23\)00230-8](https://doi.org/10.1016/s2213-2600(23)00230-8)

## Assessment Recommendations

### 1. Preconception Evaluation

- **Thyroid function tests (TFTs):** Measure **TSH**, **Free T4**, and **Total T3**.
  - **TSH receptor antibody (TRAb)** levels: Check preconception and ideally again during pregnancy if previously elevated.
  - **Thyroid ultrasound:** If nodules or goiter are present or suspected.
  - **Medication history:** Review and adjust antithyroid drugs (ATDs) before conception.
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## Medication Recommendations

### 1. Preferred Treatment Before Conception

- **Definitive therapy is preferred** if the patient is not yet pregnant:
    - **Radioactive iodine (RAI)** or **thyroidectomy** are considered.
    - RAI requires a **6-month delay** before conception due to risk of fetal exposure and persistent TRAb.
  - **If ATDs are continued:**
    - **Methimazole (MMI)** or **Carbimazole (CBZ)** should be switched to **Propylthiouracil (PTU)** before conception or as soon as pregnancy is confirmed, ideally in the first trimester due to teratogenicity risks of MMI.
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