



## PICOT Question Worksheet

**Name: Ajoke Ojo**

Please read the assignment guidelines and rubric. Provide answers to the following:

**1) Identify and describe one practice-related issue or concern. You may choose to build on the practice issue you identified in NR500NP/NR501NP. Provide support for the issue from scholarly nursing sources current within the last 5 years.**

The practice-related issue is poor medication adherence among elderly Type II diabetes patients, particularly those aged 60-80 years. This issue is critical due to its direct impact on health outcomes and healthcare costs. Medication adherence is a crucial determinant of glycemic control, essential for preventing complications and improving the quality of life in diabetes type 2 patients (T2D) (Alshehri et al 2020). Similarly, medication adherence plays a crucial role in managing hyperglycemia, hypertension, dyslipidemia, and other comorbidities common in diabetes patients. Poor compliance with the medications increases the risks of hospitalization, more healthcare costs, and mortality among these patients. The adherence rates vary widely in the United States, ranging from 36 to 93% for oral antidiabetic agents and approximately 63% for insulin (Sahoo et al. 2022). The outcomes of poor adherence are worse for the eldest patients, who are at higher risk of other chronic illnesses and medical conditions.

Inadequate glycemic control (HbA1c <7%) affects at least 45% of patients with Type II diabetes, with poor medication adherence being a major contributing factor



(Sendekie et al., 2020). This nonadherence is linked to increased morbidity and mortality, as well as higher costs of outpatient care, emergency room visits, hospitalization, and managing complications. Patient factors like age, education level, income level, and beliefs about medications all influence medical compliance. Due to cognitive decline, some patients may doubt the effectiveness of their medicines or forget to stick to them. Others may feel overwhelmed by the complex dosage, especially for those taking other medications as well. However, one critical causal factor is inadequate integrated care, where different healthcare providers do not contribute effectively. The joint efforts of physicals, nurse practitioners, families, and patients may be insufficient in promoting patient education and medication compliance.

**2) Explain why the issue/concern is important to nurse practitioner practice and the issue's impact on health outcomes. Provide support for the importance of the issue from scholarly nursing sources current within the last 5 years.**

The issue of medication adherence among elderly T2D patients is crucial for nurse practitioners (NPs) as it directly impacts practice outcomes, professional growth, and healthcare costs. Proper patient medication adherence is a primary indicator of quality healthcare and NP performance (Sendekie et al., 2020). NPs directly manage chronic conditions like diabetes, and their success hinges on patients taking medications as prescribed. Poor adherence leads to uncontrolled blood sugar (HbA1c), increasing the risk of complications like blindness, amputations, kidney disease, and



heart attack. By promoting adherence, NPs can significantly improve their patients' quality of life and prevent these devastating complications.

Additionally, the issue of medication adherence among T2D patients is critical for NPs since inadequacy leads to adverse outcomes. Inadequate medication compliance is a significant driver of hospital admissions and increased healthcare costs for diabetes (Sahoo et al. 2022). Since NPs play a crucial role in cost-effective care, helping patients adhere to medications can reduce hospitalizations, emergency visits, and the overall financial burden on the healthcare system. Moreover, NPs often spend more time with patients than other providers. This allows them to identify and address the barriers preventing adherence, such as medication complexity, cost concerns, or lack of understanding. Through education and shared decision-making, NPs can empower patients to manage their diabetes actively. However, there is limited empirical evidence on whether the intervention of NPs is effective compared to non-NP intervention.

The primary impact of this issue on health outcomes is uncontrolled blood sugar among T2D patients aged 60-80 years. Absconding the prescribed medications affects the blood sugar levels, increasing the risk of long-term complications like neuropathy, kidney failure, and cardiovascular disease (Zeyfang et al., 2021). These complications significantly reduce a patient's quality of life and lifespan. Secondly, poor medical adherence to T2D can lead to severe illnesses and death. The patients are also likely to incur increased healthcare spending due to hospitalizations, emergency room visits, and managing complications. By improving adherence, NPs can help control healthcare



costs and ensure resources are used efficiently. Therefore, poor medication compliance affects the overall management of T2D and quality of life.

### 3) Define each element of your PICOT question in one or two sentences.

- **P-Population and problem** (What is the nursing practice concern or problem and whom does it affect?)

P-Population and problem is the risk of poor medication compliance/adherence among Type II diabetes patients aged above 60 -80 years (P).

- **I-Intervention** (What evidence-based solution for the problem would you like to apply?)

The contribution of NPs in delivering viable solutions to patients (I) includes patient-centered care and needs. This includes but is not limited to, patient, family, and caregiver education, post-discharge care, medication supervision, routine blood work, and regular home-based care, among other things.

- **C-Comparison** (What is another solution for the problem? Note that this is typically the current practice, no intervention at all, or alternative solutions.)

All other solutions that do not involve NPs may include help from families, friends, and patient self-care or no intervention at all (C).

- **O-Outcome** (Very specifically, how will you know that the intervention worked? How will you measure the outcome?)

Improved medication adherence or compliance among elderly T2D patients, significant down-trends of Hgb A1C every three months, and no complications like neuropathy, peripheral arterial disease (PAD), retinopathy, and no organ failure(O).

- **T-Timeframe** (Timeframe involved for the EBP initiative/target completion date.)

The T-timeframe is three months after the patient is discharged or after office visits with the NP (T). Three months is also the average time to recheck Hgb A1C.



**Construct your PICOT question in the standard PICOT question format (narrative) and define each letter separately, such as:**

- P = poor medical adherence/compliance among elderly T2D patients aged 60 -80 years
  - I = NPs intervention
  - C = no NPs intervention
  - O = improved medication adherence and patient outcomes
  - T = three months
- 
- PICOT Question written in full: In elderly Type II diabetes patients aged 60 - 80 facing medication compliance issues (P), how does the NP intervention (I) compared with no NP intervention (C) affect medication adherence or compliance and patients' outcomes (O) within three months?



## References

- Alshehri, K. A., Altuwaylie, T. M., Alqhtani, A., Albawab, A. A., Almalki, A. H., & Albawab, A. (2020). Type 2 diabetic patients adherence towards their medications. *Cureus*, 12(2). <https://doi.org/10.7759%2Fcureus.6932>
- Sahoo, J., Mohanty, S., Kundu, A., & Epari, V. (2022). Medication Adherence Among Patients of Type II Diabetes Mellitus and Its Associated Risk Factors: A Cross-Sectional Study in a Tertiary Care Hospital of Eastern India. *Cureus*, 14(12). <https://doi.org/10.7759%2Fcureus.33074>
- Sendekie, A. K., Netere, A. K., Kasahun, A. E., & Belachew, E. A. (2022). Medication adherence and its impact on glycemic control in type 2 diabetes mellitus patients with comorbidity: A multicenter cross-sectional study in Northwest Ethiopia. *Plos one*, 17(9), e0274971. <https://doi.org/10.1371/journal.pone.0274971>
- Zeyfang, A., Wernecke, J., & Bahrmann, A. (2021). Diabetes Mellitus at an Elderly Age. *Experimental and clinical endocrinology & diabetes : official journal, German Society of Endocrinology [and] German Diabetes Association*, 129(S 01), S20–S26. <https://doi.org/10.1055/a-1284-6023>