Creating a patient history and developing a PICO (Patient, Intervention, Comparison, Outcome) question from that history is a crucial step in evidence-based practice. Below is a hypothetical example:

### **Sample Patient History:**

Patient: Mr. Smith, a 65-year-old male Medical History: Diagnosed with Type 2 Diabetes Mellitus (T2DM) and Hypertension. Medications: Metformin 500mg twice daily, Lisinopril 10mg once daily Allergies: No known drug allergies Social History: Smokes half a pack of cigarettes daily, does not consume alcohol, retired engineer, married. Family History: Father had coronary artery disease, and mother had T2DM. Chief Complaint: Recent onset of fatigue and increased thirst. Physical Exam: BP 145/90 mmHg, BMI 30, random blood sugar 200 mg/dL Lab Investigations: HbA1c 8.0%, Cholesterol 200mg/dL, LDL 120mg/dL, HDL 40mg/dL.

### **PICO Question:**

P (Patient): In patients like Mr. Smith who is 65 years old with T2DM and hypertension, I (Intervention): does initiating a Dipeptidyl Peptidase-4 Inhibitor (e.g., Sitagliptin) alongside existing metformin therapy C (Comparison): compared to continuing metformin monotherapy, O (Outcome): result in better glycemic control and blood pressure management?

### **References/Links for further exploration:**

* Patient History Taking:
  + [Patient history taking guideline](https://www.ncbi.nlm.nih.gov/books/NBK395/)
  + [Clinical history taking](https://www.med.uottawa.ca/procedures/history/)
* PICO Framework:
  + [Formulating a PICO question](https://libguides.library.curtin.edu.au/ld.php?content_id=28915065)
  + [PICO: Defining Your Question](https://www.hsl.virginia.edu/services/howdoi/hd-pico.cfm)
* Evidence-based Practice:
  + [Introduction to Evidence-Based Practice - PICO](https://guides.mclibrary.duke.edu/ebm/pico)
  + [Evidence-Based Practice: PICO(T) Questions](https://www.usfhealthonline.com/resources/key-concepts/pico-t-questions-in-evidence-based-nursing/)

The query could be structured to include keywords related to the patient's conditions, the intervention being considered, and the outcomes you are interested in investigating. Here is a suggested query:

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("Type 2 Diabetes Mellitus"[Title/Abstract] OR "T2DM"[Title/Abstract]) AND ("Hypertension"[Title/Abstract]) AND ("Dipeptidyl Peptidase-4 Inhibitors"[Title/Abstract] OR "Sitagliptin"[Title/Abstract]) AND ("Metformin"[Title/Abstract]) AND ("glycemic control"[Title/Abstract] OR "blood pressure management"[Title/Abstract])

In this query:

* We're looking for articles that discuss Type 2 Diabetes Mellitus (T2DM) and hypertension.
* We specify the intervention of interest by including terms related to Dipeptidyl Peptidase-4 Inhibitors, specifically Sitagliptin.
* We mention the existing therapy of Metformin.
* Finally, we include keywords related to the outcomes of interest: glycemic control and blood pressure management.

Version 2 of the query:

((“Type 2 Diabetes Mellitus”[Title/Abstract] OR “T2DM”[Title/Abstract]) AND “Hypertension”[Title/Abstract]) AND (“Treatment”[Title/Abstract] OR “Intervention”[Title/Abstract] OR “Management”[Title/Abstract]) AND (“Review”[Publication Type] OR “Guideline”[Publication Type])

Explanation of this query:

* The first part ((“Type 2 Diabetes Mellitus”[Title/Abstract] OR “T2DM”[Title/Abstract]) AND “Hypertension”[Title/Abstract]) is searching for articles that discuss both T2DM and hypertension.
* The second part (“Treatment”[Title/Abstract] OR “Intervention”[Title/Abstract] OR “Management”[Title/Abstract]) is focused on finding articles that discuss treatment, intervention, or management of these conditions.
* The third part (“Review”[Publication Type] OR “Guideline”[Publication Type]) aims to narrow down the search to review articles or guidelines, which may provide a broader overview of current best practices and interventions.

To refine the query to include only articles from the last 5 years in English

(T2DM AND Hypertension AND (Treatment OR Intervention OR Management)) AND English[LA] AND ("2016/01/01"[PDAT] : "2021/12/31"[PDAT])

Explanation:

* English[LA]: This part of the query utilizes the Language field tag [LA] to specify that you want articles published in English​.
* ("2016/01/01"[PDAT] : "2021/12/31"[PDAT]): This part of the query utilizes the Publication Date field tag [PDAT] to specify a date range, in this case, limiting the search to articles published from January 1, 2016, to December 31, 2021,​

For Mr. Smith, a multidisciplinary approach involving lifestyle modifications and medication management is crucial. Here are some treatment considerations:

Glycemic Control: Continue Metformin; consider adding a second antidiabetic medication like a DPP-4 inhibitor or GLP-1 receptor agonist.

Hypertension Management: Continue Lisinopril; consider adding a second antihypertensive such as a calcium channel blocker or diuretic.

Lifestyle Modifications: Smoking cessation, a balanced diet, regular physical activity, and weight loss.

Regular Monitoring: Frequent blood pressure and blood sugar monitoring, along with follow-up appointments.

Consultation with endocrinologists, cardiologists, and a dietitian may provide a comprehensive treatment plan.

Suggested medication plan: DPP-4 inhibitor or GLP-1 receptor agonist for glycemic control and consider adding a second antihypertensive such as a calcium channel blocker or diuretic