# PCOS Quality of Care: A Retrospective Analysis

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### Introduction

- Patients with PCOS struggle getting a diagnosis and after one is made, struggle with proper care and symptom management.
- Provider recommendations are often not aligned with patients' goals for care.
- Weight bias is prevalent in PCOS care.
- Risks and comorbidities associated with PCOS include insulin resistance, dyslipidemia, and metabolic syndrome, placing these patients at increased risk of cardiovascular complications.
- High quality, evidence-based PCOS care guidelines can help prevent and mitigate these long-term complications.

### Guidelines

 ACOG and International guidelines by Teede et al. (2018) and Neven et al. (2018).

#### Metabolic:

- ACOG: Screen for type 2 diabetes and impaired glucose tolerance with a fasting glucose level followed by a 2-hour glucose tolerance test (GTT).
- International: Glycemic status with GTT, fasting glucose or HbA1c should be assessed at baseline in all women with PCOS, followed by reassessments every 1-3 years.
- Regular monitoring for weight changes.

### Cardiovascular:

- BMI, fasting lipid and lipoprotein levels, and metabolic syndrome factors.
- Women with PCOS and overweight or obesity should have a fasting lipid profile, followed by reassessments based on hyperlipidemia and global CVD risk.



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### Methodology

- Retrospective analysis of patients with PCOS at UCH, part of COMIRB 22-2299.
- Inclusion: patients aged 18-50 years old with an "Encounter Diagnosis", "Medical History", or a "Problem List" including PCOS, from 1/1/2018 through 12/31/2022.
- Patients also had to have at least one visit within UCH since 2021.
- Labs of interest as outlined by society and international guidelines: HbA1c, Glucose Tolerance Test (GTT), fasting lipids (lipid panel and individual components, LDL, HDL, cholesterol, triglycerides), and fasting glucose.

## Demographics & Results

Characteristic	N = 8,090 (%)
Age at first visit <sup>1</sup>	32 (27, 38)
Family history of diabetes	4,365 (54%)
Race	
White Or Caucasian	6,150 (79%)
Other	739 (9.5%)
More Than One Race	443 (5.7%)
Black Or African	350 (4.5%)
American	
American Indian Or	41 (0.5%)
Alaska Native	
Other Pacific Islander	12 (0.2%)
Asian Indian	11 (0.1%)
Unknown	344
<sup>1</sup> Median (IQR)	

Lab Test	N = 8,090 (100%)
Hemoglobin A1c	4,096 (51%)
Lipids (any)	3,678 (45%)
Glucose	5,635 (70%)
GTT	788 (9.7%)

### Discussion

- The percentage of patients with PCOS receiving appropriate screening at appropriate intervals for glycemic status, diabetes, related metabolic disorders, and cardiovascular disorders, is low.
- 54% of the patients in this study also have a family history of diabetes, already placing them at increased risk of developing diabetes.
- Comparisons with screening for other serious conditions:
  - Cervical cancer: 83% (goal 93%)
  - Breast cancer: 72% (goal 81.1%)
  - Colorectal cancer: 67% (goal 70.5%)
  - Encouraging, since these involve more invasive procedures.
- Reasons for missed screening: providers may not be aware of guidelines, lack of endorsement of existing international guidelines by primary care organizations.

### Limitations

- Patients with visits and care outside of UCH
- Not all patients are eligible for or need all possible interventions for PCOS.
- Age as a possible confounding variable, with patients more likely to have regular metabolic screening as their age increases.

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