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Preconception Counseling: Frequently Forgotten by Primary Care Providers Due to Multiple Barriers

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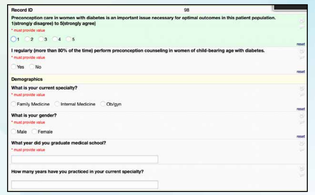
INTRODUCTION

- Preconception counseling (PC) is defined as organized care specifically targeted for women with diabetes mellitus (DM) that are preparing for pregnancy with the main goal of optimizing their glycemic control prior to conception.
- For the purpose of this study, PC was defined as one of the following:
  - General discussion about the benefits of glycemic control prior to conception and during pregnancy for those women not currently considering conception.
  - Discussion of future plans for pregnancy and rationale for strict glycemic control and or transitioning to appropriate diabetic regimen in those women considering pregnancy in the near future.
  - Discussion of contraception in women with DM specifically noting importance of tight glycemic control prior to conception.
- The American Diabetes Association (ADA) recommends that all women of childbearing age with DM receive PC beginning at puberty.

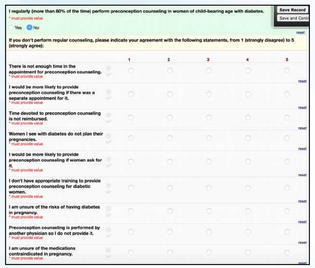
OBJECTIVES AND METHODS:

- Primary objective was to estimate the percentage of women 18-35 years old with type 1 or type 2 DM who received PC from primary care providers: family medicine (FM), internal medicine (IM), and obstetrics and gynecology (OB) physicians in Lehigh Valley Health Network (LVHN)
- Secondary objective was to create a survey to determine barriers preventing health care providers from providing PC.
- Patient population included women ages 18-35 with type 1 or type 2 DM with or without complications that had a non-acute office visit with FM, IM, or OB between June 1, 2014 and June 30, 2016. A total of 2750 charts were identified and 577 of these met inclusion criteria.
- Office notes were reviewed to determine if the patient received PC at the office visit.
- Additionally, an electronic survey was created to evaluate barriers to providing PC. The survey was sent to 524 FM, IM, and OB providers within the Lehigh Valley Health Network.

Figure 1: Provider Survey. (A) Initial view when open survey. (B) Additional questions if provider chooses the answer that they do not regularly provide preconception counseling to patients.



(A) Initial view when survey is opened.



(B) Additional questions if provider chooses the answer that they do not provide preconception counseling to patients.

RESULTS:

- For the primary objective, 109 patients (18.9%) received PC during an office visit in the past 3 years.
- There was a statistically significant association between specialty and providing PC: OB visits had a higher proportion of women who received PC (36.1%) compared to IM (9.82%) and FM (7.11%).
- Of the 524 surveys emailed to providers, 97 surveys were completed (18.5%).
- The overall survey responses revealed that providers would like more time during an appointment to discuss PC and another appointment to discuss PC. In addition, they felt that unplanned pregnancies are a barrier and that women should ask for PC.
- Furthermore, surveys showed that providers think they are providing PC more often than it is documented in patient charts that it is actually provided.

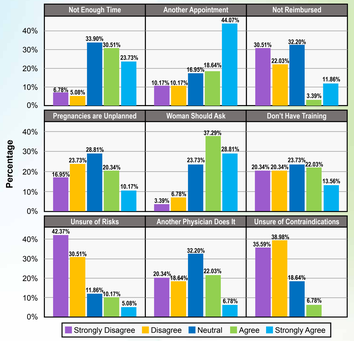
Table 1. Descriptive Statistics for the Study Sample (N=577)

	Total (N=577)	Received PC Within Past 3 Years (N=109)	Did Not Receive PC Within Past 3 Years (N=468)
Demographics			
Race			
Caucasian	355 (61.5)	68 (62.4)	287 (61.3)
African American	56 (9.7)	10 (9.2)	46 (9.8)
Hispanic/Latino	140 (24.3)	29 (26.6)	111 (23.7)
Other	26 (4.5)	2 (1.8)	24 (5.1)
Marital Status			
Single	347 (60.1)	49 (45.0)	298 (63.7)
Married	186 (32.2)	52 (47.7)	134 (28.6)
Widowed	3 (0.5)	1 (0.9)	2 (0.4)
Divorced	26 (4.5)	5 (4.6)	21 (4.5)
Other	15 (2.6)	2 (1.8)	13 (2.8)
Age *median (IQR)*	30 (25-33)	32 (28-34)	29 (25-33)
Clinical Characteristics			
Types of Diabetes			
Type 1	227 (39.3)	37 (33.9)	190 (40.6)
Type 2	350 (60.7)	72 (66.1)	278 (59.4)
HbA1c *median (IQR)*	7.5 (6.3-9.7)	6.9 (6.15-9.15)	7.6 (6.4-9.8)
ANumber of Visits Past 3 Years median (IQR)	5 (2-8)	7 (3-11)	4 (2-8)

Table 2. Specialty Which Provided Preconception Counseling or Patient Saw Most Frequently within the Past 3 Years

	Family Medicine (N=225)	Internal Medicine (N=112)	OB/GYN (N=205)	*p*
PC Provided				<.0001
Yes	16 (7.1)	11 (9.8)	74 (36.1)	
No	209 (92.9)	101 (90.2)	131 (63.9)	

Figure 2. Percentage of Responses within Each Category of PC Questions



CONCLUSIONS:

- In conclusion, the rate of PC provided at LVHN does not meet the ADA guidelines.
- OB provided the most PC at LVHN, which may be due to their patient population being females of childbearing age.
- Based on survey responses, providers believe they are supplying PC more regularly than they are. While 39.2% of providers believe they perform PC regularly, only 18.9% are providing counseling in a 3-year period.
- Furthermore, providers would be more likely to provide PC if women initiated the discussion and if they had more time/extra appointment.
- Educating providers on the need to initiate and incorporate PC discussions in an efficient manner during routine visits may improve the rates of PC in women with pre-existing DM.

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