



## Background

- The postpartum period is high-risk for many patients yet prediction of those at risk for complications is limited

## Objective

- To investigate the association of antepartum Edinburgh Postnatal Depression Scores (EPDS) on postpartum healthcare utilization

## Study Design

- Secondary analysis of a randomized, non-blinded trial comparing the timing of postpartum (PP) visits in a single academic center
- Variables: demographics, delivery outcomes, postpartum visits to the emergency department (ED) and clinic and EPDS in the antepartum period and immediately postpartum prior to discharge from the hospital
- Statistics: univariable receiver operating characteristics (ROC) curves and Spearman correlation; multivariable logistic regression was performed to adjust for confounders of attendance at the clinic and ED

## Results

- November 2018 and March 2020, 250 patients analyzed
- Comorbidities, obesity (53%), diabetes (30%), mental health disorders (22%) and hypertensive disorders (21%)
- Eighteen women (7%) in the cohort utilized the ED within 30 days of delivery with the median attendance on postpartum day 10 (IQR 7.5-20).
- An elevated antepartum EPDS score  $\geq 10$  was more common among patients who used the ED compared to those who did not (47% vs 17%,  $p=0.004$ ) (Table 1) with an area under the curve (AUC) of 0.648 (Figure 1)
- There were no other demographic and clinical variables predictive of ED usage
- A consult with a social worker during the delivery hospitalization was more common among those who utilized the ED (72% vs 29%,  $p<0.001$ ) and was the strongest predictor after adjusting for confounders (aOR 5.43 [1.38-21.4]).
- Twenty one women (8%) presented to the clinic for an urgent postpartum visit and were more likely to have an antepartum EPDS  $\geq 13$  (31% vs 12%,  $p=0.027$ , aOR 7.93 [1.32-47.7])

An **elevated EPDS** in the antepartum time period is associated with **postpartum emergency department use** and **urgent clinic visits.**



## Questions?

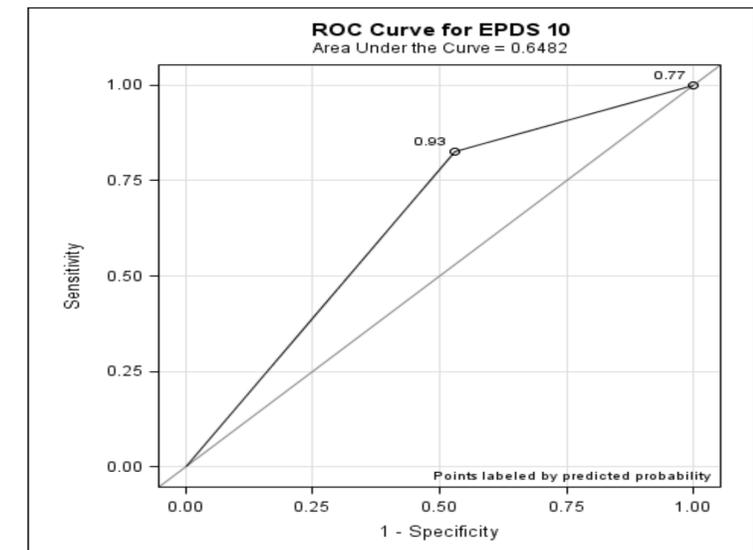
- Take a picture of this QR code
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Table 1: Characteristics of Patients who Attended the ED Within 30 Days of Delivery

Variable	ED Visit (n=18)	No ED Visit (n=232)	P-value
Age	30.4 +/- 7.9	30.4 +/- 5.8	0.958*
Non-white race	16 (88.9)	206 (88.8)	0.999†
Single	10 (55.6)	128 (55.6)	0.994†
Less than high school	N=12 1 (8.3)	N=167 19 (11.4)	0.999†
Distance >20 miles	2 (11.1)	29 (12.5)	0.999†
Nulliparous	7 (38.9)	96 (41.4)	0.836†
Gestational age at intake	15.5 (10.1-28.1)	19.1 (10.1-31)	0.512†
Obese at consent	11 (61.1)	122 (52.6)	0.485†
Any hypertension	9 (50.0)	89 (38.4)	0.330†
Diabetes	4 (22.2)	70 (30.2)	0.477†
Mental health disorder	7 (38.9)	49 (21.1)	0.082†
<b>Antepartum EPDS <math>\geq 10</math></b>	<b>N=17 8 (47.1)</b>	<b>N=155 27 (17.4)</b>	<b>0.004†</b>
<b>Antepartum EPDS <math>\geq 13</math></b>	<b>5 (29.4)</b>	<b>18 (11.6)</b>	<b>0.041†</b>
Cesarean	6 (33.3)	68 (29.3)	0.719†
Severe intrapartum complications	3 (16.7)	14 (6.0)	0.112‡
NICU admission	3 (16.7)	23 (9.9)	0.412†
Inpatient EPDS $\geq 10$	N=18 4 (22.2)	N=230 22 (9.6)	0.104‡
Inpatient EPDS $\geq 13$	3 (16.7)	12 (5.2)	0.084‡
<b>Social work inpatient</b>	<b>13 (72.2)</b>	<b>67 (28.9)</b>	<b>&lt;0.001†</b>

Data are n(%), mean +/- SD, median (25-75% IQR)  
\*t-test; † Chi square test ‡ Fisher's exact § Wilcoxon rank sum

Figure 1: Receiver Operating Characteristics Curve for Elevated EPDS and ED Usage



## Conclusion

- An elevated EPDS in the antepartum time period is associated with postpartum emergency department use and urgent clinic visits. Close postpartum follow-up may be warranted for women with elevated EPDS during pregnancy.