Lehigh Valley Health Network
LVHN Scholarly Works

Department of Obstetrics & Gynecology

The Challenge of Early Inpatient Postpartum Depression Screening

Elizabeth A. Berger DO
Lehigh Valley Health Network, Elizabeth.Berger@lvhn.org

John C. Smulian MD, MPH
Lehigh Valley Health Network, john.smulian@lvhn.org

Joanne Quiñones MD, MSCE
Lehigh Valley Health Network, Joanne_N.Quinones@lvhn.org

Rory L. Marraccini MD
Lehigh Valley Health Network, Rory_L.Marraccini@lvhn.org

Amy Wu BS

See next page for additional authors

Follow this and additional works at: https://scholarlyworks.lvhn.org/obstetrics-gynecology

Part of the Obstetrics and Gynecology Commons, Psychiatry Commons, and the Statistics and Probability Commons

Published In/Presented At

Berger, E., Smulian, J., Quiñones, J., Marraccini, R., Wu, A., Smulian, E., & Curet, S. (2013). *The challenge of early inpatient postpartum depression screening.* Poster presentation.

This Poster is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.

Authors
Elizabeth A. Berger DO; John C. Smulian MD, MPH; Joanne Quiñones MD, MSCE; Rory L. Marraccini MD; Amy Wu BS; Elizabeth A. Smulian BS; and Sandra L. Curet MD

This poster is available at LVHN Scholarly Works: https://scholarlyworks.lvhn.org/obstetrics-gynecology/284

The Challenge of Early Inpatient Postpartum Depression Screening

Elizabeth Berger, MD[1], John C. Smulian, MD, MPH[1,2], Joanne N. Quiñones, MD, MSCE[1,2], Rory Marraccini, MD[3], Amy Wu, BS[4], Elizabeth A. Smulian, BS[5,6], Sandra Curet, MD[1]

[1]Department of Obstetrics & Gynecology, Lehigh Valley Health Network, Allentown, PA; [2]Division of Maternal Fetal Medicine, Lehigh Valley Health Network, Allentown, PA; [3]Department of Psychiatry, Lehigh Valley Health Network, Allentown, PA; [4]University of South Florida-Morsani College of Medicine,Tampa, FL; [5]Emory University-Rollins School of Public Health, Atlanta, GA; [6]Mental Health America of Georgia, Atlanta, GA

Objectives

- To determine if women who screen positive on an early inpatient Edinburgh Postnatal Depression Scale (EPDS) have a specific risk factor profile.
- Assess the results of EPDS screening if applied to a risk-identified population.

Methods

- This is a retrospective study of 2 cohorts of women delivering from 1/2010 to 6/2010.
  - **Cohort 1:** A 5-week cohort of consecutive deliveries.
  - **Cohort 2:** 5 months of consecutive deliveries from mothers with the most important risk factor for postpartum depression identified in Cohort 1, a history of mental illness.
- Screening was performed prior to discharge.
- An EPDS score ≥13 or failure to answer "never" to a question about the potential for self-harm was considered positive.
- All screen positives had a psychiatric consultation.

Results

- Cohort 1 included 322 subjects with 11(3.4%) positive screens.
- Cohort 2 included 215 subjects with 33(15.3%) positive screens.
  - Significant differences based on screen results in Table 1
- Multivariable logistic regression-identified predictors of a positive screen:
  - Cohort 1 (R^2=0.44)
    - A history of mental illness
    - Neonatal infection
    - Gestational diabetes
    - Earlier EGA at delivery
  - Cohort 2 (R^2=.14)
    - Employment
    - Vaginal delivery
    - Gestational hypertension
- Diagnoses from psychiatric evaluation prior to discharge results in Table 2.

Table 1. Significant differences between those women who screened positive using the EPDS screening tool for a universally screened postpartum group (Cohort 1) and a targeted risk population with a history of mental illness (Cohort 2).

	Cohort 1 (n=322)			Cohort 2 (n=215)		
	EPDS - n=311	EPDS + n=11	P	EPDS - n=182	EPDS + n=33	P
Insurance						
Government				39% (73)	45.2% (14	0.05
Private				46% (86)	24.8% (8)	
Self Pay				15% (28)	29.0% (9)	
Employed				52.8% (92)	24% (7)	0.004
BMI (mg/kg2)						
Pre-pregnancy				27.6 + 8.6	26.3 + 6.7	0.08
Delivery				32.9 + 8.6	31.8 + 5.44	0.002
EGA at Delivery (weeks)	38.7 + 2.6	34.7 + 5.6	<0.001			
History of Mental Illness	14.1% (44)	63.6% (7)	<0.001			
Renal				1.6% (3)	0%	0.05
Rheumatologic	1.0% (3)	9.1% (1)	0.02			
GDM	9% (28)	27.3% (3)	0.04			
gHTN				5.9% (11)	16.1% (5)	0.04
Neonatal	20.6% (64)	54.5% (6)	0.008			
AP/IP/PP/neonatal	71.1% (221)	100% (11)	0.04			
Vaginal Delivery	70.4% (218)	36.4% (4)	0.02	63.2% (115)	81.8% (27)	0.04
NICU/Transitional Nursery	19.9% (62)	54.4% (6)	0.006			

AP - Antepartum; IP - Intrapartum; PP - Postpartum

Table 2. Significant differences between those women who screened positive using the EPDS screening tool for a universally screened postpartum group (Cohort 1) and a targeted risk population with a history of mental illness (Cohort 2).

	Cohort 1 (n=322)	Cohort 2 (n=215)
	EPDS + n=11	EPDS + n=33
None	9.1% (11)	-- (0)
Major Depression	54.5% (6)	39.4% (13)
Bipolar Disorder	27.3% (3)	24.2% (8)
Substance Abuse	9.1% (1)	3.0% (1)
PTSD	9.1% (1)	9.1% (3)
Adjustment Disorder	9.1% (1)	21.1% (4)
Generalized Anxiety Disorder	-- (0)	3.0% (1)
Panic Disorder	-- (0)	6.1% (2)
Anxiety Disorder (NOS)	27.3% (3)	3.0% (1)
Mood Disorder (NOS)	-- (0)	18.2% (6)
Psychological Factors Affecting Medical Condition	-- (0)	6.1% (2)
No Diagnosis Assigned	9.1% (1)	-- (0)
1 Diagnosis Assigned	54.5% (6)	69.7% (23)
2 Diagnoses Assigned	27.3% (3)	30.3% (10)
3 Diagnoses Assigned	9.1% (1)	-- (0)

© 2013 Lehigh Valley Health Network

Conclusions

- There are low screen positive rates for population-based EPDS administration prior to hospital discharge.
- A history of mental illness identifies an enriched population at increased risk for an early positive screen.
- Predictors of positive screening vary based on the population screened.
- Early screening prior to discharge can identify a variety of mental health disorders.

A PASSION FOR BETTER MEDICINE.™

Lehigh Valley Health Network

610-402-CARE LVHN.org