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Gail Stern MSN

*Lehigh Valley Health Network, Gail.Stern@lvhn.org*

Donna Petruccelli MSN, CRNP, NP-C

*Lehigh Valley Health Network*

Jeanne Manavizadeh BSN, RN, PCCN

*Lehigh Valley Health Network, Jeanne.Manavizadeh@lvhn.org*

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### Published In/Presented At

Stern, G., Petruccelli, D., & Manavizadeh, J. (2013). *Psychiatric nursing care for patients with cardiac disease*. Poster presentation.

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# Psychiatric Nursing Care for Patients With Cardiac Disease

## GAIL STERN, MSN, PMHCNS-BC

**DONNA PETRUCCELLI, MSN, CRNP, NP-C, CFHN, CNS**

**JEANNE MANAVIZADEH, RN, BSN, PCCN**

# Lehigh Valley Health Network, Allentown, PA

# Nursing Care of Cardiac Patients With Depression

Lehigh Valley Health Network is a 985 bed tertiary care hospital in Northeastern Pennsylvania with Heart Failure (HF) patient volumes 4 to 6 times the national average. In an effort to reduce 30 day all cause readmissions in this high risk population, a multidisciplinary team was convened.

To prioritize continuum of care issues leading to measurable improvements consistent with the fundamental priorities of People, Service, Quality, Cost and Growth, Psychiatric nurse leadership was invited to provide expertise in the management of our complex HF patients with depression. Subsequently, a plan was developed to educate our cardiac nurses.

A LVHN Heart Failure Readmission Reduction Project Team works on improved outcomes and the reduction in inpatient readmissions for our patients with Congested Heart Failure. In 2012, they invited a Psychiatric Nurse to join this group.

We made a plan to educate our cardiac nurses on depression and screen all patients admitted to our Regional Heart Center who carried the diagnosis of CHF. We screened for depression utilizing the PHQ2. This depression screen along with Suicide screening results were reported and discussed with the attending physician. In some cases immediate consults to Psychiatry were made to provide for patient safety and initiate treatment. Patients with positive scores, who were not in immediate need, were referred for follow up in outpatient settings.

PHQ2 and PHQ9 screening of patients in LVHN practices can be completed and monitored through our Electronic Medical Record, Centricity Physician Office. We have begun to standardize the monitoring process in multiple settings. It is through these nursing collaborations that Cardiac Nurses and Psychiatric Nurses educate and coordinate improved care for our patients. Integration occurs... two nurses at a time!

## Serious Mental Illness and Heart Disease

“Patients with severe mental illnesses, such as schizophrenia, bipolar disorder and depression together affect 5%-10% of the U.S. population, lose 25 or more years of life expectancy, with the majority of the excess premature deaths due to CVD, not suicide.” (*Newcomer and Hennekens*)

## Heart Disease and Mental Illness

- 1 in 5 people will have an episode of major depression in their lifetime. That number climbs to about 1 in 2 for people with heart disease.
- The risk of heart disease is double for people with a history of depression.
- Major depression puts heart attack victims at greater risk and appears to add to the patient's disability from heart disease. (*World Federation of Mental Health*)
- Hospitalized patients over 70 years-of-age who suffer from a combination of HF and depression experience readmission rates of 67% versus 44% among the same age group with HF but without depression. (*Rozzini*)
- Patients with HF are twice as likely to die if they have depression compared with those who did not have depression. (*Silver*)
- A multicenter study demonstrated that even at three months following a hospitalization, 63% of HF patients reported symptoms of depression.
- Patients with stable CHD plus generalized anxiety disorder (GAD) have a higher risk of experiencing cardiovascular events such as stroke, myocardial infarction, and death than patients with CHD only.
- GAD was associated with a 74% increased risk for adverse cardiovascular outcomes. (*E. Martins, World Federation for Mental Health*)

## Depression and NYHA Functional Class

Screening for endogenous or prolonged reactive depression in patients with HF is recommended by the 2012 HFSA guidelines following diagnosis. The AHA recommends screening and treatment for depressive symptoms in an attempt to improve self-care behaviors and physical functioning.

## Patient Health Questionnaire (PHQ-2)

### Patient Health Questionnaire (PHQ-9)

**The Patient Health Questionnaire-2 (PHQ-2)**

The PHQ-2 inquires about the frequency of depressed mood and anhedonia over the past two weeks. The PHQ-2 includes the first two items of the PHQ-9.

- The purpose of the PHQ-2 is not to establish that a diagnosis or to monitor depression severity, but rather to screen for depression in a "first step" approach.
- Patients who screen positive should be further evaluated with the PHQ-9 to determine whether they meet criteria for a depressive disorder.

**Clinical Utility**

Reducing depression and other screening questions enhances routine inquiry about the most prevalent and treatable mental disorder in primary care.

**Scoring**

A PHQ-2 score ranges from 0-6. The author<sup>1</sup> identified a PHQ-2 cutoff score of 3 as the optimal cut point for screening purposes and stipulated that a cut point of 2 would enhance sensitivity, without a cut point of 4 would decrease specificity.

**Psychometric Properties<sup>2</sup>**

Any Depression (2% prevalence)			Any Depression (LBP prevalence)		
PHQ-2	Sensitivity	Specificity	PHQ-2	Sensitivity	Specificity
1	97.6	59.2	1	90.6	65.4
2	92.7	73.7	21.1	82.1	70.4
3	82.8	90.0	38.4	83.3	95.4
4	73.2	93.3	45.5	6	97.9
5	52.7	96.8	56.5	5	13.1
6	26.8	99.4	68.6	4	12.0

<sup>1</sup> Because the PHQ version with the prevalence of depression, the PHQ will be higher at a higher prevalence of depression and lower at a lower prevalence of depression.

2. Kroenke K, Spitzer R, Williams JB. The Patient Health Questionnaire-2: validity of a two-item depression screener. *Medical care*. 2003; 41(2):218-226.

**The Patient Health Questionnaire-2 (PHQ-2)**

\_\_\_\_\_  
Patient Name \_\_\_\_\_ Date of Visit \_\_\_\_\_

**Over the past 2 weeks, how often have you been bothered by any of the following problems?**

	<b>Not At All</b>	<b>Several Days</b>	<b>More Than Half the Days</b>	<b>Nearly Every Day</b>
1. Little interest or pleasure in doing things	0	1	2	3
*****				
2. Feeling down, depressed or hopeless	0	1	2	3

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<b>PATIENT HEALTH QUESTIONNAIRE (PHQ-9)</b>						
<b>Name:</b>					<b>Date:</b>	
Over the last 2 weeks, how often have you been bothered by each one of the following problems?						
(use "1" to indicate your answer)						
	<b>Nat at all</b>	<b>Sometimes</b>	<b>Much less than half the days</b>	<b>Nearly every day</b>		
1. Little interest or pleasure in doing things	0	1	2	3		
2. Feeling down, hopeless, or helpless	0	1	2	3		
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3		
4. Feeling tired or having little energy	0	1	2	3		
5. Poor appetite or overeating	0	1	2	3		
6. Feeling about as usual? – or that you are a failure or lost control? or even thinking of harming yourself.	0	1	2	3		
7. Trouble concentrating on things such as work/home tasks or watching television	0	1	2	3		
8. Thinking, stopping to think that other people must have noticed <u>your problem</u> , such as being nervous or shy without knowing why. Or feeling like everyone else is judging you.	0	1	2	3		
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3		
	<b>Add estimate</b>					
		-	-	-		
(Detailed explanation for interpretation of TOTAL patient score in accompanying scoring sheet.)				<b>TOTAL</b>		
If you checked off any problems, how difficult has these problems made it for you to do your normal life activities. Take care of errands & housework, get going with other people,					<b>How difficult at all:</b>	
					<b>Some difficulty</b>	
					<b>Very difficult</b>	
					<b>Extremely difficult</b>	

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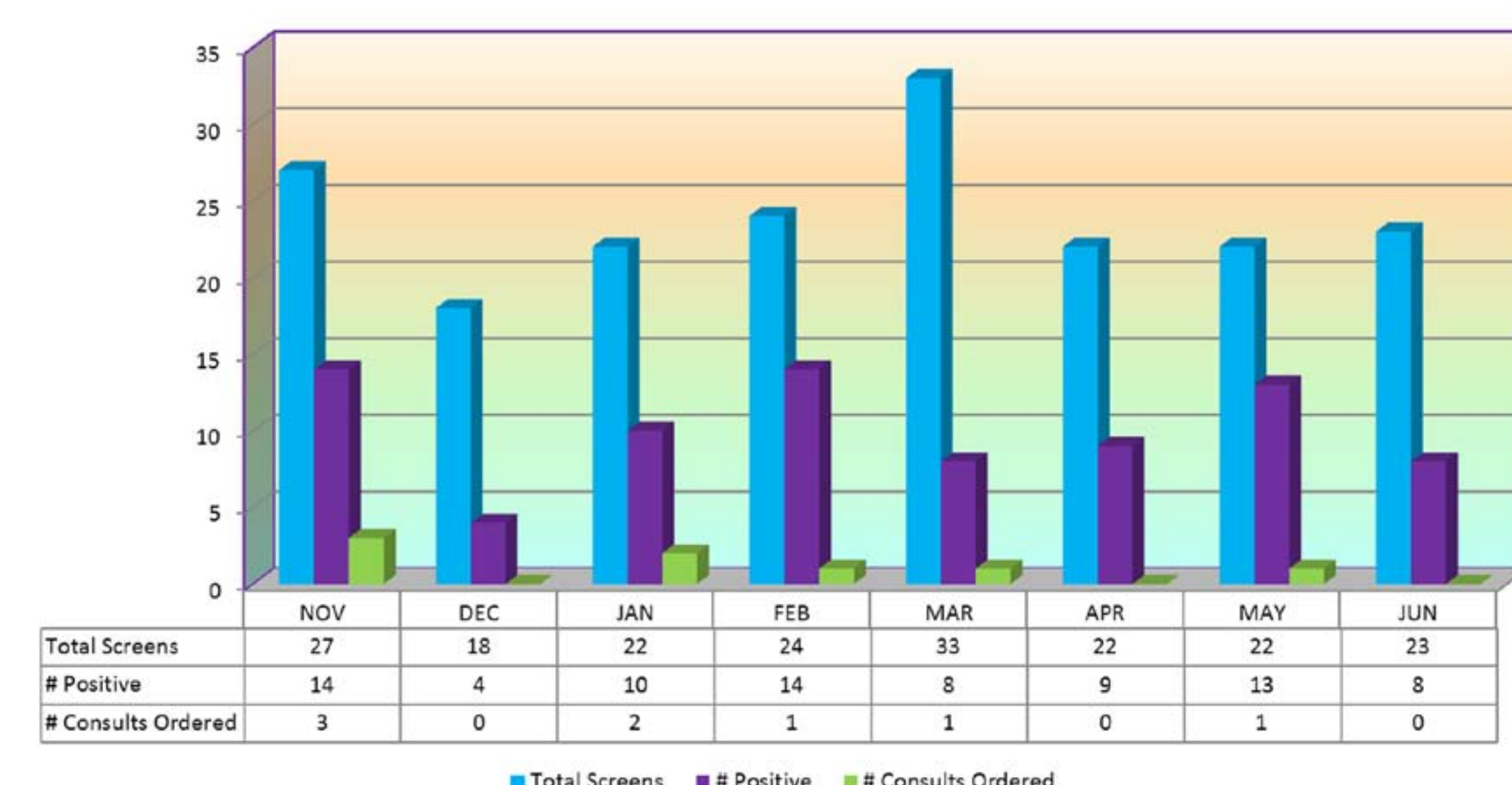
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## CONTACT INFORMATION

**Gail Stern, MSN, PMHCNS-BC**  
Gail.Stern@lvhn.org

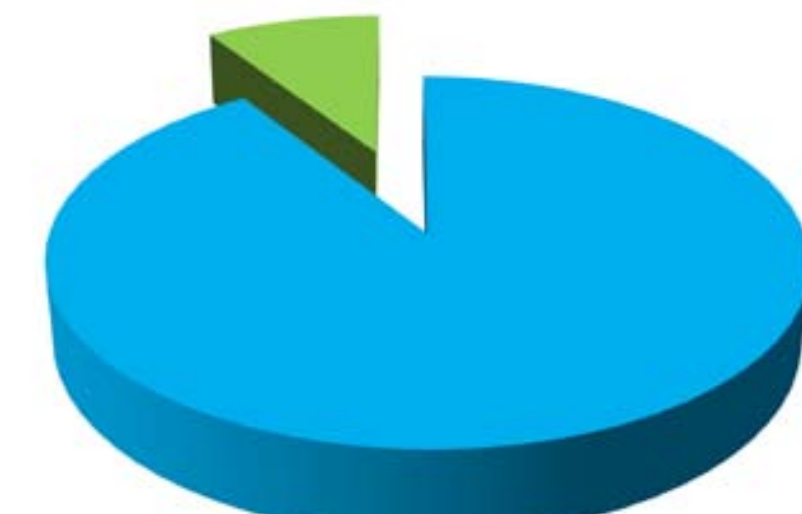
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## 42% Positive Screenings



### Consults Ordered on 10% of Positive Screenings



## Primary vs. Secondary Diagnosis

- It is unclear if it is an independent primary diagnosis or if the depressive symptoms are secondary to the patients' chronic, complex illness.
- Both diagnoses share common pathophysiologic pathways and benefit from disease specific specialty care early in their diagnosis.

## Depression and NYHA Functional Class

- A meta-analysis in 2006, performed by Rutledge, et. al., demonstrated a direct relationship between HF functional class and severity of depression.
- Patients with NYHA functional class I (mild) HF suffered an 11% occurrence of depression; 20% in class II, 38% in class III, and 42% in class IV.