A Depression Screening Protocol for Acute Stoke Patients: A Quality Improvement Project

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Depression Screening Protocol for Acute Stroke Patients: A Quality Improvement Project

Celia McIntosh, DNP, RN, FNP-C, CCRN, CEN, SCRN, CNRN

Background
- Depression is the most common emotional disturbance after stroke
- Affecting 2.5 million stroke survivors annually
- Depression has been identified as a risk factor for stroke and is predicted to become the second leading cause of disability by 2020
- Has an annual cost burden of $83 billion annually, $52 billion represents lost work days and productivity
- In 2012, Joint Commission in collaboration with the American Heart Association, recommends assessment for depression, prior to discharge from a Comprehensive Stroke Center (CSC)
- PSD can lead to increased mortality, suicidal ideation, poor functional/rehabilitation outcomes, quality of life, social isolation, and cognitive impairment
- Despite this knowledge PSD is often under recognized and undertreated.

Scope of Problem
- Lack of facility implemented screening programs
- Gold standard of treatment remains undetermined
- Treatment with antidepressant following stroke improves functional recovery and long-term survival
- PSD can prolong inpatient LOS and outpatient visits

Project Purpose
- To develop, implement and evaluate an evidence-based depression screening and treatment protocol specific to the care of acute stroke inpatients prior to discharge

Methods

Participant Demographics
- Gender: 48% female, 52% male
- Age: 56+ years old
- Race: 68% white, 36% African American, 6% Asian
- Educational level: 69% high school graduate, 14% some college, 12% college
- Employment status: 51% employed, 36% unemployed, 12% retired

Results

Clinical Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Yes</th>
<th>No</th>
<th>Depressed</th>
<th>Non-Depressed</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stroke</td>
<td>Yes</td>
<td>No</td>
<td>55%</td>
<td>45%</td>
<td>0.001</td>
</tr>
<tr>
<td>Depression</td>
<td>Yes</td>
<td>No</td>
<td>45%</td>
<td>55%</td>
<td>0.001</td>
</tr>
<tr>
<td>Smoking</td>
<td>Yes</td>
<td>No</td>
<td>45%</td>
<td>55%</td>
<td>0.001</td>
</tr>
<tr>
<td>Gender</td>
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<td>Female</td>
<td>45%</td>
<td>55%</td>
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<tr>
<td>Alcohol use</td>
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<td>No</td>
<td>45%</td>
<td>55%</td>
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</table>

PHQ-9 Category Variables

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<tr>
<td>No depression</td>
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<td>0.32</td>
</tr>
<tr>
<td>Mild depression</td>
<td>5-9</td>
<td>0.05</td>
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<tr>
<td>Moderate depression</td>
<td>10-14</td>
<td>0.03</td>
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<tr>
<td>Severe depression</td>
<td>15-19</td>
<td>0.01</td>
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</table>

Protocol Variables

<table>
<thead>
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<th>No</th>
<th>Depressed</th>
<th>Non-Depressed</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-progress care documentation</td>
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<td>49%</td>
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<tr>
<td>Non-medication</td>
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<td>No</td>
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<td>95%</td>
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<tr>
<td>Educational counselor</td>
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<td>No</td>
<td>100%</td>
<td>0%</td>
<td>0.001</td>
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</table>

Conclusions
- Early diagnosis and treatment of PSD has the potential to improve short and long-term patient outcomes and conserve healthcare dollars
- Integration of a systematic depression screening protocol will help standardize screening and treatment practices for acute stroke patients
- The use of a formal screening protocol is a clinically important intervention because of the detrimental effects PSD can have on the stroke survivors, their family and the healthcare system
- Nurses can intervene early during post stroke acute phase if they can identify patients at risk.

Implications for Practice
- Further research utilizing this protocol will validate its reliability in acute stroke patients in the acute care setting and add to the body of existing literature
- Further studies are needed to determine optimal timing and method of screening and ideal treatment strategy

References & Acknowledgements
- References available upon request
- Rochester General Neurology Department
- 7800 Stroke Unit Nurses