Primary Care Provider’s Barriers and Adherence to the USPSTF Mammography Screening Guidelines

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Significance

• Breast Cancer is the second leading cause of cancer deaths among women in the United States.
• In 2014 the Center of Disease Control (CDC) reported:
  – 220,097 women were diagnosed with breast cancer.
  – 40,931 women in the United States died from breast cancer.

Significance (continued)

• The incidence of breast cancer has decreased by 2% per year from 1998 through 2007

• Death rates have also declined since 1990 (CDC, 2013).
Significance (continued)

• Despite the availability of the clinical guidelines by the United States Preventive Services Task Force (USPSTF) adherence to these methods is only 42% (Meissner et al. 2011).

• Compliance with guidelines improves clinical outcomes.

Justification of Project

• Data from the organization’s PQRS network of providers revealed that preventive mammography screening was at 15.6%

• Communication with the Vice president of Physician Services

Purpose

• Identify barriers and improve provider’s adherence to the USPSTF mammography screening guidelines in three primary care clinics located in Southeastern North Carolina.
**Objectives of the Project**

(a) Identify barriers

(a) Provide an intervention

(b) Improve the providers utilization of the USPSTF mammography screening guidelines.

**Problem Statement**

- Lack of adherence to guidelines can delay the services women need for breast cancer prevention.

**Research Question**

- Can implementation of a targeted education program improve the adherence with the USPSTF mammography screening guidelines among primary care providers in Southeastern North Carolina?
Review of Literature

• CINAHL/ PubMed data bases were used to identify literature for this project.

• 293 articles were obtained and 31 articles were ultimately selected for inclusion in this project.

• MESH terms used: Breast cancer screening, United States Preventive Task Force (USPSTF) Mammography screening guidelines, Primary care providers, practice patterns, adherence and barriers.

Review of Literature

• Mammography is an effective tool for early detection and reduction of mortality rates from breast cancer.

• The American Cancer Society (ACS), American College of Obstetricians Gynecology (ACOG), and the United States Preventive Services Task Force (USPSTF) are three of the National professional organizations for breast mammography screening guidelines.

Theoretical Framework

http://ic-pod.typepad.com/design_at_the_edge/2007/06/innovative-ways.html
Methodology

• **Project design:** Quality improvement project with an educational intervention.

• **Sample size:** 90 retrospective chart reviews of the patients meeting the criteria for the USPSTF mammography guidelines.

Instrument

• A chart review form was developed to perform the retrospective chart reviews.

• Items included were:
  – account/chart number
  – age
  – mammogram due date
  – whether mammogram was ordered, documented, and screening performed
  – if the USPSTF guidelines were followed.

Data Analysis

Descriptive statistics with frequencies, cross tab, percentages and Chi-Square test were used to answer the following scholarly project questions.

1. What are the barriers to the USPSTF mammography screening guidelines among primary care providers in three primary clinics?
2. Is there a difference in adherence with the USPSTF mammography screening guidelines between the three clinics?
3. Did the intervention increase the adherence to the USPSTF mammography guidelines in the three clinics?
Findings

Table 1

<table>
<thead>
<tr>
<th>Findings</th>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Providers</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Time Commitment</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>IF Incentive</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Communications between Primary care provider and aide from other providers needed or wanted, to N/A</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Knowledge of U.S. Dementia</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Patient's self-determining Healthcare</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lack of Communication with other Healthcare providers</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Lack of knowledge of patient's care plan</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
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<td>Lack of knowledge of patient's care plan</td>
<td>Yes</td>
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</tbody>
</table>

Table 2

Chi-Square Tests

<table>
<thead>
<tr>
<th>Value</th>
<th>DF</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>1.440</td>
<td>2</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>1.548</td>
<td>2</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.000</td>
<td>1</td>
</tr>
</tbody>
</table>

N of Valid Cases | 50

a. 0 cells (5%) have expected count less than 5. The minimum expected count is 10.00.

Table 3

Frequency of Adherence

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>Yes</td>
<td>15</td>
<td>16.7</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>75</td>
<td>83.3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>90</td>
<td>100.0</td>
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</tbody>
</table>
Appendix T
Clinical Location and Primary Insurance Cross Tabulation Chart

Appendix U
Clinical Location Secondary Insurance Cross Tabulation

<table>
<thead>
<tr>
<th>Clinic Location</th>
<th>Secondary Insurance</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location 1</td>
<td></td>
<td></td>
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<tr>
<td>Location 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location 3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data analysis from SPSS version 21

Appendix V
Clinical Location and Use of CDS in ECR (EMR) Cross Tabulation

<table>
<thead>
<tr>
<th>Clinic Location</th>
<th>Use of CDS in ECR (EMR)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Location 2</td>
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<td></td>
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<tr>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Location 3</td>
<td></td>
<td></td>
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</tbody>
</table>
Limitations

• Time frame allotted to do educational intervention

• Removal of the barriers to adherence of the USPSTF mammography screening

• Providers knowledge of how to utilize the CDSS in the EMR with documentation of preventive screening

Costs

• Nurse Practitioner Salary
  (400 hrs x $40.00/hr) = $16,000.00

• Expenses included: Paper, statistician services, ink cartridges, Mileage & Gas, Flyer and reminder card print costs, index cards, refreshments for educational program

• Total costs $ 24,840.00

Future

• Based on the results of the retrospective chart reviews, further recommendations will be provided to the providers to improve adherence to the guidelines.
References


http://ic-pod.typepad.com/design_at_the_edge/2007/06/innovative-ways.html


Questions & Comments