Breast Cancer Patient Satisfaction and Comprehension: Evaluating and Improving Radiation Treatment Education
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Background
- Breast cancer patients commonly will work with medical oncologists, surgical oncologists, and radiation oncologists simultaneously.
- Thus, patients are presented with a massive amount of information important to their treatment options and plan over a short period of time.
- Patients recall less than half the information given by physicians1.
- It is essential that education be presented in an effective and efficient manner so as to promote retention of important facts.
- It is also important that patients are completely satisfied with all facets of their education to further promote retention.
- Current education at the Memorial Radiation Oncology Department has not been evaluated by practitioners or patients for satisfaction, efficacy, or retention.
- It is therefore unclear how well important details regarding their treatment are expressed and comprehended.

Quality improvement Aim
– By March 2018, 95% of patients will be satisfied or better with all aspects of their radiation treatment. Comprehension of key facts related to breast cancer radiation treatment will be at least 75%. Educational materials will have been revamped to be more effective and efficient.

Methods
- Using a survey2, all breast cancer patients were asked about satisfaction with specific educational resources throughout their treatment and knowledge questions to evaluate retention of key facts relevant to their treatment.
- Survey results were analyzed to identify areas of weakness that could be improved upon with interventions.
- Those interventions were implemented in the clinic.
- Following the implementation of the improved educational resources, the survey modified to reflect the changes and was distributed to patients treated using those resources.
- Results from the survey were analyzed and compared to the previous results to evaluate for areas of strength, areas of continued weakness, and for possible future interventions.

Changes Due to Interventions

<table>
<thead>
<tr>
<th>Category</th>
<th>Initial Result</th>
<th>Final Result</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Satisfaction</td>
<td>92.88</td>
<td>93.18</td>
<td>0.3</td>
</tr>
<tr>
<td>Overall Satisfaction</td>
<td>96.67</td>
<td>63.64</td>
<td>-3.33</td>
</tr>
<tr>
<td>Satisfaction With Letter</td>
<td>70</td>
<td></td>
<td>-6.36</td>
</tr>
<tr>
<td>Satisfaction With Physician Handout</td>
<td>93.33</td>
<td>72.73</td>
<td>-20.6</td>
</tr>
<tr>
<td>Watched Emailed Video</td>
<td>14.29</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Watched In Office Video</td>
<td>82.14</td>
<td></td>
<td>17.86</td>
</tr>
<tr>
<td>Expected Treatment atSimulation</td>
<td>14.29</td>
<td>90</td>
<td>75.71</td>
</tr>
<tr>
<td>Overall Knowledge Score</td>
<td>55.67</td>
<td>85.56</td>
<td>29.89</td>
</tr>
<tr>
<td>Recurrence Risk Reduction</td>
<td>32.14</td>
<td>10</td>
<td>-22.14</td>
</tr>
<tr>
<td>Timing of Skin Reaction</td>
<td>46.43</td>
<td>100</td>
<td>53.57</td>
</tr>
<tr>
<td>Use of Antioxidants</td>
<td>28.57</td>
<td>90</td>
<td>61.43</td>
</tr>
</tbody>
</table>

Conclusion
- Patient-centered education improves satisfaction and makes education more memorable and effective.
- Taking time to go through resources and repeat key points improves the efficacy of educational materials.
- Condensed materials consisting of informational highlights are good options for combatting information overload.

Next Steps
- The initial informational letter and physician handouts continue to be inconsistent.
- Recurrence reduction is not being remembered.
- Efficacy of informational mediums (verbal, written, video, etc.) can be assessed to determine best practices for educating patients in the future.
- Further high yield facts can be identified by other practitioners to be assessed and highlighted.
- Similar interventions can be expanded to target other disease sites beyond the breast.

Reference