Patient navigation significantly improves vulnerability score after breast cancer.  
A pilot experience in an underprivileged community.

Laurent ZELEK1, Anne FESTA2, Nathalie MORIN2, Chloe BODERE2, Jean-François MORERE1,2, Marouane BOUBAYA1, Vincent LEVY1 
1: Department of Oncology and Clinical Research Unit, Avicenne Hospital, BOBIGNY; 2: Oncologie 93, BOBIGNY, FRANCE

Abstract

BACKGROUND: We decided to evaluate the effect of patient navigation in an area (Seine-Saint-Denis, SSD) with an estimated population of 1.4 billion, which is among the poorest in France. Median household income is 68% lower than in Paris (+/−SD). with a gap growing with time. In SSD, cancer is the leading cause of premature mortality. Whereas it is widely admitted in France that 25% of patients are faced with financial difficulties after breast cancer, SSD had a deprivation index of 63% in 2009. The Seine-Saint-Denis Health Department launched a project called “Assistance Navigation” to improve the quality of the patients' journey. This program is a non-profit organization whose aim is to provide supportive care, health education and individualized assistance to patients and families, and to facilitate timely access to quality medical and psychosocial care including: 
• Administrative formalities (eg health insurance) 
• Psychological help 
• Support groups for patient’s children and relatives 
• Health counseling (eg nutrition, physical activity) 

CONCLUSION: We hypothesize that deprivation leads to more advanced cancer. 

Patients and Methods

A phone survey was conducted using semi-structured interviews. Vulnerability was evaluated using an 11-item standardized score (EPICES) that was compared to French Health Examination Centers. Strictly speaking this score was aimed at measuring precariously a concept referring to a social condition assumed to face worsening. 

For each “yes”, add the corresponding value to the constant. Vulnerability is defined by a score >30 and is considered as severe when >40. This score is more strongly related to health status than the administrative classification of poverty. 

(Saas et al, Santé Publique 2006)

Results

• Over a 1-year period 74 breast cancer patients had E1 and E2 scores, detail of therapy was available for 64 pts. 
• The score significantly improved for the whole population (p=0.04) but worsened in 23 pts (31%).
• Undergoing surgery was significantly correlated with outcome. Patients who did not undergo surgery had a significantly better evolution of the score than those who did (p=0.04). E1 score was lower in patients eligible for surgery.

EVALUATION OF MEDIAN VULNERABILITY SCORE BEFORE (E1) AND AFTER (E2) BREAST CANCER THERAPY: FIRST AND THREE MONTHS (E1, Q1-Q3) AND MINIMAL MAXIMAL VALUES

<table>
<thead>
<tr>
<th>No. of patients</th>
<th>Total</th>
<th>E1</th>
<th>Q1-Q3</th>
<th>Min-Max</th>
<th>E2</th>
<th>Q1-Q3</th>
<th>Min-Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>No surgery</td>
<td>24</td>
<td>47.9</td>
<td>25.8-57.8</td>
<td>3.17-75.1</td>
<td>15.1</td>
<td>3.6-40.2</td>
<td>7.9-78.7</td>
</tr>
<tr>
<td>Surgery</td>
<td>40</td>
<td>137</td>
<td>14.5-63.9</td>
<td>3.17-92.2</td>
<td>33.4</td>
<td>6.47.3</td>
<td>1.6-92.9</td>
</tr>
</tbody>
</table>

Conclusions

• Patient navigation significantly improves vulnerability score during cancer therapy.
• Deprivation should be evaluated with standardized tools in cancer patients in order to propose appropriate interventions. 
• We hypothesize that deprivation leads to more advanced tumors or is associated with comorbidities contraindicating breast surgery. 
• About one third of patients experience worsening of the vulnerability after breast cancer therapy and the underlying mechanisms remain to be determined.

The calculation of poverty, a social condition assumed to face worsening. Vulnerability was evaluated using a 11-item standardized score (EPICES) previous to facing interview. The score is more strongly related to health status than the administrative classification of poverty.

E1, E2: Vulnerability score before and after breast cancer therapy. E1: score was lower in patients eligible for surgery.


data from the Regional Health Observatory

Evolution of household income* 
In Paris (75) and its area (SSD: 93)

*Data from the Regional Health Observatory

www.oncologie93.com

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*Background: We decided to evaluate the effect of patient navigation on breast cancer patients in an area (Seine-Saint-Denis, SSD) with an estimated population of 1.4 billion, which is among the poorest in France. Median household income is 68% lower than in Paris, a gap growing with time. In SSD, cancer is the leading cause of premature mortality. Yet, the area has no more than one academic cancer center

Oncologie 93 is a non-profit organization whose aim is to provide supportive care, health education and individualized assistance to patients and families, and to facilitate timely access to quality medical and psychosocial care including:

• Administrative formalities (eg health insurance)
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For each «yes», add the corresponding value to the constant. The score is more strongly related to health status than the administrative classification of poverty.

(Saas et al, Santé Publique 2006)