Use of Patient-reported Outcomes and Patient-reported Experience Measures to Improve the Colorectal Cancer Care Trajectory: Implementation in a Canadian Hospital – Jewish General Hospital – CIUSSS West-Central Montreal

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INTRODUCTION

Applying the value-based healthcare (VBHC) lens ensures systematic and meaningful measurement of patient outcomes and experiences and a structure for addressing these. The goal is to demonstrate the feasibility of simultaneously incorporating key VBHC concepts into care delivery; understand and address CRC patients’ desired health outcomes and experiences; optimize patients’ care trajectory; and ensure that clinicians and hospital managers have the necessary data to measure and improve value in a sustainable and scalable way.

Before the implementation of VBHC, some patient-reported outcome (PROs) were collected and aggregated in Jewish general hospital's (JGH) databases. An integrated approach was envisioned to successfully implement VBHC in the CRC patient care trajectory, including:

1. Developing and organizing care into an Integrated Practice Unit (IPU);
2. Incorporating PROs and patient-reported experience (PREs) collection into standard outcome measurement and care delivery; and
3. Tracking, summarizing, and sharing PROs and PREs through a common VBHC dashboard.

METHODS

VBHC Implementation tasks

1. Integrated Practice Unit (IPU)
   - Collaboration with over ten different teams and departments at the JGH
   - Mapping of CRC care trajectory
   - Implement and inform the optimal IPU

2. PROMs: Wellness questionnaire (WQ)
   - Based on ICHOM’s standard set for CRC patients
   - WQ administration and revision process[1] designed
   - WQ collection and data analysis (started on March 28th, 2023)
   - Implementation of patient follow-up
   - Implementation of an electronic dashboard

3. PREMs: Questionnaire for cancer patients (QCP)
   - Based on the Ministry of Health and Social Services[2] "Reference guide for setting up networks by tumour site"[2]
   - QCP administration and revision process[1] designed
   - QCP collection, data analysis (upcoming) and feed back to the clinicians
   - Implementation of an electronic dashboard

[1] (in French): Ministère de la santé et des services sociaux

RESULTS

PROMs (n= 58 questionnaires responded by 36 unique patients)

Figure 1. CRC patients variation of symptoms[3] over time (n= 22)

<table>
<thead>
<tr>
<th>Pain</th>
<th>Fatigue</th>
<th>Anxiety</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>(+) 32%</td>
<td>(+) 50%</td>
<td>(+) 23%</td>
<td>(+) 18%</td>
</tr>
<tr>
<td>(-) 32%</td>
<td>(-) 36%</td>
<td>(+) 36%</td>
<td>(+) 55%</td>
</tr>
</tbody>
</table>

Note: (+) increase, (-) no change, (-) decrease.

The reduction of pain, fatigue, anxiety and depression over time was made thanks to patient follow-up and interventions carried out by clinicians.

Figure 2. Most cited concerns[4] in at least 20% of questionnaires (n=55)

- Understanding my illness and/or treatment: 40%
- Fear/Worries: 27%
- Concentration/Memory: 10%
- Physical condition/treatment affecting your family or social life: 10%
- Worry about family/friends: 10%
- Maintaining your dietary needs/intake: 10%
- Frequency of bowel movements: 10%
- Feeling like a burden to others: 10%
- Weakness: 0%
- Activities of daily living: 0%
- Gas/flatulence: 0%
- Numbness/Tingling: 0%

[3] These results are from the Edmonton Symptom Assessment System Revised
[4] These results are from the Canadian Problem Checklist

PREMs

Table 1. Dashboard elements

<table>
<thead>
<tr>
<th>Filters</th>
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<tbody>
<tr>
<td>• Demographics (gender, age)</td>
</tr>
<tr>
<td>• Tumor site</td>
</tr>
<tr>
<td>• Course of treatment</td>
</tr>
<tr>
<td>• Status of course of treatment (beginning, middle, end)</td>
</tr>
<tr>
<td>• Hospital that provided the care or services</td>
</tr>
</tbody>
</table>

Investigation delay

- From the occurrence of first symptoms or an abnormal test result to first appointment with the oncology specialist.

Care/Treatment satisfaction

- Improvement areas
- Information received for treatment and place of treatments
- Consideration of patients needs and the urgency of the situation in the planification

Transfer organization

- Clarity of transfer process explanation
- Transfer process satisfaction
- Communication between hospitals during the process

Support

- Support availability
- Information about the appropriate resource to contact
- Reference and communication with the appropriate resource, when needed

Clinical research

- Proposition to participate

Overall satisfaction

- Recommendation of the hospital
- Rating of care received

CONCLUSION

PROs and PREs collection promote shared decision-making between patients and their healthcare team, supports the delivery of patient-centered care, and strengthens the value of the care delivered, thereby also increasing organizational efficiency. Our results indicate that it is feasible and beneficial to patients and clinical teams to measure PROs and PREs in real time so as to optimize patient care and outcomes.