HR+/HER2- Metastatic Breast Cancer

Quality Improvement (QI) Toolkit

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Learn about QI

Quality Improvement (QI) is a systematic approach where members of the health care team work together and use structured methods, tools, data, and measurements to make health care safer, more effective, timely, efficient and equitable. QI can also help the health care team continuously improve and become more patient-centered when delivering care.

There are numerous opportunities to apply QI when managing patients with HR+/HER2- metastatic breast cancer.

Conduct a QI project

Complete each step listed below and fill out the templated forms to guide you through the process of conducting a QI project with your team:

Step 1: Find a problem to improve

Identify potential problems related to the management of patients with HR+/HER2- metastatic breast cancer. Review clinical data (e.g., BRCA testing rates) and explore non-clinical data (e.g., staff surveys or meeting minutes) to assess your baseline state.

Generate a list of potential ideas for problem statements, then refine the list by going through the following questions:

- Which problems have the greatest impact on patient outcomes?
- Which problems have the most variation among your clinicians?
- How do the problems affect clinical workflow and operations?

Draft a problem statement and be sure to include details around the following:

- When
- Who
- Where
- What

**Example problem statement:** In 2019, only 5% of the patients with HR+/HER2- metastatic breast cancer who were treated at the outpatient cancer clinic were referred for genetic counseling and testing for germline BRCA mutation.

**Rationale:** The 2019 “Consensus Guidelines on Genetic Testing for Hereditary Breast Cancer from the American Society of Breast Surgeons” summarizes the data that support genetic testing being offered to every patient with breast cancer.
Step 2: Form a project team
Identify team members who will be focused on the specific problem you have identified. These team members will also be working on finding and implementing different interventions designed to solve the problem. The team should be interprofessional and multidisciplinary. Be sure to think about people from IT, tumor registry, and from administration. Identify a team leader and write all the team member names in a project team roster.

Step 3: Gain a better understanding of the problem
Discuss the problem statement as a team and gain a better understanding about the root causes behind the problem. Some tools that may help you include:

**Cause-and-effect diagram (also called a fishbone diagram):**

![Diagram]

**Process map (flow chart):**

![Flow Chart]
Step 4: Define your measures
Gather all the necessary baseline data so that the problem is clearly defined before you start any interventions. Identify outcome, process, and balancing measures for your project.

Example measures may include:

- Proportion of patients with metastatic breast cancer who are referred for pre-test genetic counseling for germline BRCA testing
- Proportion of patients with metastatic breast cancer who receive germline BRCA testing
- Proportion of patients with metastatic breast cancer who are referred to hospice or palliative care prior to death
- Proportion of patients with metastatic breast cancer who received chemotherapy in the last 14 days of life

Step 5: Develop an aim statement
Now that your team has a better understanding of the problem, draft an aim statement that clearly articulates when, what, where, and how much improvement will be made.

**Example aim statement:** Over the next 6 months, our cancer clinicians will increase BRCA testing rates by 33% among all patients with metastatic breast cancer who are treated at our outpatient cancer clinic.
Step 6: Identify and prioritize potential interventions

Review the problem statement and the root causes with the members of the project team. Identify a list of potential interventions that address specific causes of the problem. After listing the ideas, consider using a tool such as a prioritization matrix to determine the clinical impact (high vs. low) and the feasibility (easy vs. difficult) of implementing these interventions.

<table>
<thead>
<tr>
<th>Clinical Impact</th>
<th>Feasibility (ease of implementation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Easy</td>
</tr>
<tr>
<td>Low</td>
<td>Difficult</td>
</tr>
</tbody>
</table>

If the team generates many high-potential ideas, then consider a voting process to help the team select one intervention. The voting criteria may include: time, available resources, clinical impact, etc. Take the top three ideas and have the team vote on one idea that will achieve a meaningful improvement.
Step 7: Use PDSA cycles to test interventions

Work with your project team to create a list of possible interventions that will improve the problem. Prioritize these ideas based on their feasibility and the impact they may have on the problem.

Once your team selects an intervention, test the idea by using PDSA (Plan Do Study Act) cycles:

1. **Plan**: State the objective of the test. Make predictions about what will happen and why. Develop a plan to test the change.

2. **Do**: Carry out the test. Document problems and unexpected observations. Assign one or two people who will collect the data at specified intervals.

3. **Study**: Analyze the data. Compare the data to your predictions. Summarize and reflect on what was learned with other members of the team.

4. **Act**: Determine what modifications should be made, or consider expanding the changes into other areas.

Each PDSA cycle will provide valuable information and becomes the basis for further improvement.
Use a PDSA worksheet to assign responsibilities among members of the project team and to set deadlines.

**PDSA Worksheet**

1. Define your aim, the overall goal you wish to achieve.
2. Plan the first (or next) test of change toward achieving the aim.
3. Do the test.
4. Record and study the results.
5. Act to modify the plan for your next test.

**Aim:**

**Plan**

Describe your first (or next) test of change:

Who is responsible:  
When is it to be done:  
Where is it to be done:

List the tasks needed to set up this test:  
Who:  
When:  
Where:

Predict what will happen when the test is performed:  
List measures for assessing the predictions:
Step 8: Share your findings

As PDSA cycles are completed, share your findings with other members of the cancer care team. Your team may also want to submit your QI project as a conference abstract or poster that summarizes your work, successes, and lessons learned.
QI Project Examples
The following examples may provide ideas for cancer centers seeking to improve the quality of patient care.

Example 1: BRCA testing

**Problem Statement:** In 2019, only 5% of the patients with HR+/HER2- metastatic breast cancer who were treated at the outpatient cancer clinic were referred for genetic counseling and testing for germline BRCA mutation.

**Aim:** Over the next 6 months, our surgeons, medical oncologists, and radiation oncologists will work together to coordinate referrals and increase BRCA testing rates by 33% among all patients with metastatic breast cancer who are treated at our outpatient cancer clinic.

**Plan:** The cancer center will refer every patient with metastatic breast cancer for pre-test genetic counseling and BRCA testing.

**Do:** Form a project team and develop a process map for the current process of genetic testing referrals. Examine how surgeons, medical oncologists, and radiation oncologists are referring patients. Develop a paper questionnaire and patient education materials. Provide these forms to every patient with metastatic breast cancer who comes for a clinic visit or treatment appointment. The EHR will track when patients receive these materials. Discuss the clinical importance of BRCA testing and offer to make a referral for pre-test genetic counseling and BRCA testing. If patients refuse, then document this in the chart.

**Study/Act:** Each month, track the following measures: proportion of patients who received the questionnaire and patient education materials; proportion of patients who received a referral for pre-test genetic counseling; proportion of patients who received BRCA testing. Share these results with the members of the cancer care team and find other ways to improve BRCA testing in these patients.
Example 2: Symptom management and ED visits

Problem Statement: In 2019, the cancer center found that 25% of their patients with metastatic breast cancer who were receiving active medical or radiation therapy had made a trip to the emergency department (ED) complaining of nausea, vomiting, diarrhea, fever, and pain.

Aim: Over the next 9 months, reduce preventable emergency department (ED) visits by 10% among all patients with metastatic breast cancer who are treated with medical therapy or radiation therapy at our cancer center.

Plan: Conduct a 6-month pilot with an electronic patient-reported outcome (ePRO) platform that will allow clinicians to proactively identify and manage symptoms.

Do: Select an ePRO platform and form a project team to run the pilot. Instruct patients and staff about the benefits associated with using the ePRO tool.

Study/Act: Each month, track the following measures: proportion of patients who report symptoms; types and severity of symptoms reported; proportion of patients who go to the ED; reasons for the ED visits. At the end of the pilot, ask patients to evaluate the ease and satisfaction around using the ePRO tool. Ask clinicians for feedback regarding the utility of the ePRO tool and determine whether to end the pilot or expand the tool to other areas within the cancer center. Share these results with the members of the cancer care team and identify other ways to improve symptom management.