

# Breast Cancer: global quality care optimizing care delivery with existing financial and personnel resources



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## ABSTRACT

Our vision about breast cancer quality care within a global health framework was recently published by Oxford University Press. The aim of our work was to reflect on the potential to achieve a world-wide improvement in quality care, assessing value for money. The population-based survival estimates from the CONCORD programme and the Breast Health Global Initiative (BHGI) are valuable tools for this global effort. Because cancer care delivery is becoming unsustainable in many countries assessing healthcare value for the cost is becoming increasingly important. Recommendations are made for better global quality care for patients with breast cancer.

## INTRODUCTION

Our vision about breast cancer quality care within a global health framework was recently published by Oxford University Press. The aim of our work was to reflect on the potential to achieve a world-wide improvement in quality care, assessing value for money. The population-based survival estimates from the CONCORD programme and the Breast Health Global Initiative (BHGI) are valuable tools for this global effort. Because cancer care delivery is becoming unsustainable in many countries assessing healthcare value for the cost is becoming increasingly important. Recommendations are made for better global quality care for patients with breast cancer.

Breast cancer is the most common cancer among women in 140 of 184 countries. The incidence is rising in almost all countries and age groups. However, the probability of surviving up to 5 years or more since diagnosis is increasing and mortality is decreasing in high-income countries (HICs). World-wide variation remains wide, especially in low-income and middle-income countries (LMICs). The economic burden of breast cancer on health systems is growing and becoming unsustainable in many countries.

To address breast cancer within a global health framework, we published our vision about ‘Breast cancer: Global Quality care’, a common effort among a broadly

representative international faculty.<sup>1</sup> The aim of our work is a reflection on the world-wide improvement in quality care, assessing value for money. The COVID-19 pandemic has crystallised the need for a global vision to establish effective collaborations to address major health dilemmas. The aspiration of this editorial is to highlight and put on the international agenda approaches to provide access to high-quality breast cancer care through fiscally responsible and sustainable methods at a global level.

## Quality management on a global scale

Achieving the best quality of clinical care requires rigorous quality management. In turn, this requires optimal use of international clinical guidelines, as well as the improved organisation of healthcare pathways, deployment of population-based cancer registries and continuous research to monitor the operation of the ‘plan–do–check–act’ cycle of the audit.

In all aspects of care, the woman must be the centre of focus: she must be informed about the decision-making process and invited to participate in it. At all stages of care, clarity of the goals of treatment for each woman is paramount to make decisions and actions successful. It is important to understand that some women prefer their clinician to tell them what to do, but many others wish to understand their clinical–therapeutic pathway to help them feel engaged and empowered. These patients should receive personalised information and not have to rely on the internet to obtain it.<sup>2</sup>

The integration and use of the multidisciplinary meeting (MDM) in routine care for patients with cancer is the hallmark of multidisciplinary care, and it should ensure that the best options for treatment are considered. The treatment options for each patient are discussed and the most suitable is proposed to the patient. A global approach recognises

that the options are influenced by regional availability of care. After being informed about the possibilities, preferably with all pros and cons, the decision will be made in a shared process. Although the management of many women with breast cancer is discussed and determined during MDMs, such meetings are not mandatory in many countries. Biomolecular expert boards as well will become more important with the increasing use of genomic technologies, especially in HICs.

The Breast Health Global Initiative (BHGI) has been striving to develop best care approaches to assist in the early detection, diagnosis and treatment of women with breast cancer in LMICs, but also in underserved communities in HICs.<sup>3</sup> Since 2002, the BHGI has been developing the approach of 'resource-stratified' guidelines. This guideline methodology has now been applied by the National Comprehensive Cancer Network (NCCN), the American Society of Clinical Oncology (ASCO) and by the World Health Organisation (WHO).<sup>4</sup> High-quality, accessible resources are needed for policy-makers and healthcare providers to facilitate the effective implementation of these guidelines in limited-resource settings. More recently, BHGI has proposed a 'phased implementation' methodology for translating resource-stratified guidelines into clinical practice based on principles of implementation research.<sup>5</sup>

Cancer registries comprise an essential element in evaluating cancer control strategies and the quality of care, and for setting priorities in public health. Close contact between the cancer registry, researchers and caregivers will improve the quality and use of the data, as well as the ability to understand the relevance of the findings.

### Quality indicators on a global scale

Optimal patient management is the summation of individual high-quality decisions at each step of the breast cancer journey. Quality indicators (QI) are typically categorised as those of structure, process and outcome,<sup>6</sup> to which we would add value. In examining a specific care delivery scenario, a balanced QI panel should be selected, based on disease burden and healthcare resources within a country, to provide useful information for policy-makers to make practical and programmatic decisions. QI panels are established by multidisciplinary breast cancer experts, working in collaboration with patient advocates, taking into account the difficulties in determining the right standard.<sup>7</sup>

### Structure indicators

These are designed to measure whether healthcare facilities and equipment are adequately organised to deliver appropriate and timely care to the target population. The organisation of a MDM, the pathway to make a decision, the availability of specialised equipment and trained personnel are examples of such indicators.

### Process indicators

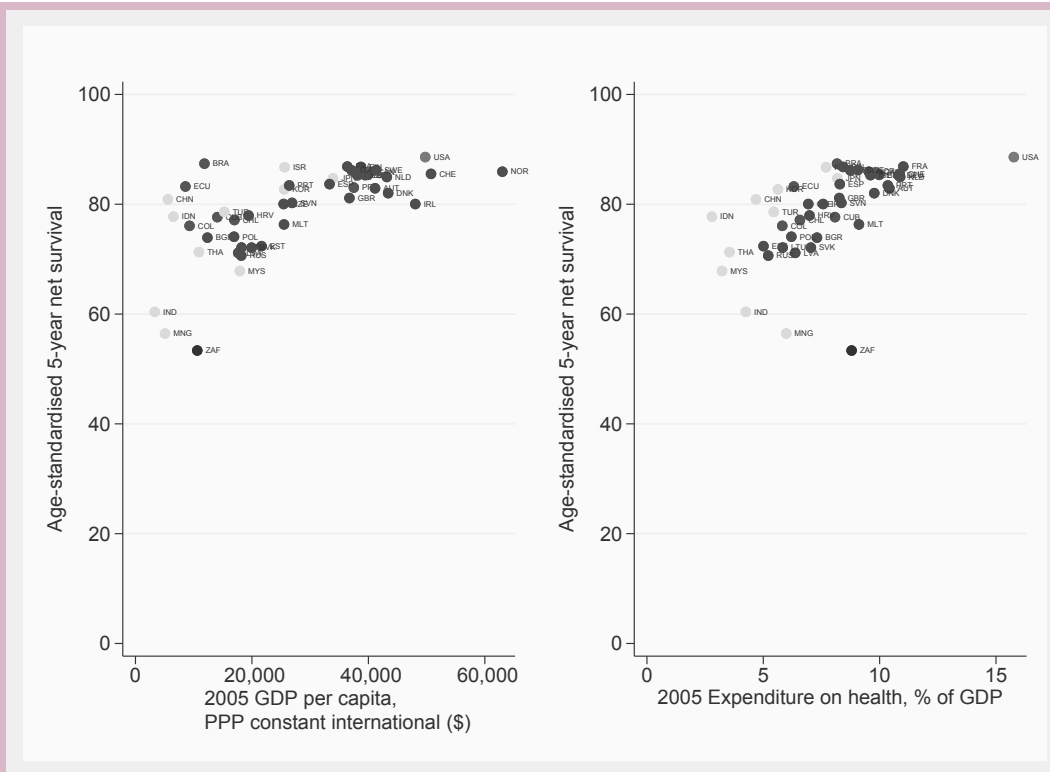
These measure how patients move through the early detection, diagnosis and treatment pathways, as reflected both by timeliness and by the degree of adherence to clinical guidelines, including justified deviations, which can improve the woman's oncological outcomes or her quality of life. Process indicators tell us whether each step of the care pathway performs as desired.

### Outcome indicators

These, such as recurrence and survival, and patient-reported outcome measures (PROMs), are perhaps the most relevant from a global health perspective, but hardest to define.

Measures of recurrence and survival are reliable only if the numerator and denominator refer to the same patient populations and if large cohorts are followed over adequate periods of time. Long-term outcome measures are often influenced by many variables, making the assignment of responsibility of benefit or harm difficult. Global surveillance of breast cancer survival trends is the best example of real-world data to make an impact on health policy. The population-based survival estimates from the CONCORD programme reflect the overall effectiveness of health systems and help to inform strategic policy-making. The aim of the CONCORD programme is to monitor cancer survival trends worldwide and explain the reasons for the wide inequalities.<sup>8</sup> The most recent cycle of the CONCORD programme (CONCORD-3) includes data from 322 cancer registries in 71 countries, covering a total population of almost 1 billion in 2014.<sup>9</sup> Health ministers in these countries now have access to internationally comparable cancer survival estimates. Since 2017, the survival estimates from CONCORD have become one of the key indicators of health system performance in the OECD *Health at a Glance* publication. In contrast to clinical trials, which aim to achieve the highest possible survival in a group of patients selected by age, stage and lack of comorbidity, survival estimated from real-world data, obtained from population-based cancer registries, reflects the average survival achieved by all patients with cancer, and therefore, the overall quality of the health system in managing cancer from early diagnosis to treatment and final outcome. Breast cancer survival up to 5 years after diagnosis continues to increase. In many countries, 5-year survival has reached 85% or more, but global variation remains wide.

The collection of PROMs is becoming mandatory in developing countries, where value-based healthcare is recognized. Their aim is to monitor the health-related quality of life as viewed by the patients themselves and to reduce healthcare costs by avoiding the use of unnecessary treatments. In addition, they support informed decision making and improve healthcare quality by enabling comparison of outcome data between providers. The implementation of standard sets of PROMs, such as those proposed by the International Consortium for Health Outcomes Measurement,



**Figure 1** Breast cancer: global distribution of age-standardised 5-year net survival (%) in adult women (aged 15–99 years) diagnosed during 2005–2009, by country, gross domestic product (US\$ Purchasing Power Parity, PPP per capita) and total national expenditure on health. Data source: CONCORD programme.

requires resources and dedicated personnel.<sup>10</sup> For countries where this level of scrutiny is not feasible, alternatives need to be sought.

### ASSESSING HEALTHCARE VALUE FOR COSTS

Breast cancer costs are increasing due to rising numbers of patients and increasing treatment costs. These costs account for 13% of the total cancer-related expenditure in the EU. Medication represents 20% of the total economic burden of breast cancer in the EU.<sup>11</sup> So, the optimal use of limited resources is increasingly important in all countries. The assessment of the value of new cancer treatments based on a clinical benefit is becoming very important in breast cancer today. The ESMO Magnitude of Clinical Benefit Scale and ASCO Framework of Value are valuable tools. It is interesting to note the curvilinear relationship between 5-year net survival and gross domestic product (GDP), which reaches an asymptote around a GDP of US\$30 000 to US\$35 000 per capita. Above a certain level of growth, survival levels appear to plateau (figure 1). There is a more linear relationship between 5-year survival and total national expenditure on health as a proportion of GDP.

Overdiagnosis and overtreatment are important issues in HICs but are less relevant in LMICs. After the surgical revolution of breast conservation,<sup>12</sup> oncoplastic surgery<sup>13</sup> and sentinel node biopsy,<sup>14</sup> the recent use of hypofractionation of radiotherapy<sup>15</sup> simplified local treatment. In

addition, the introduction of gene expression profiling in endocrine positive breast cancer and the new strategies of combining and optimising HER2-targeted therapies could potentially improve outcomes but may in essence allow de-escalation of treatment in many patients sparing patients unnecessary treatments and their related toxicities.<sup>16 17</sup> Healthcare value for money must be ensured when determining which services are included in benefit packages. Since recent projections suggest that more than 60% of women will soon be diagnosed over the age of 70 years, geriatric assessment can provide personalised, high-quality care for many of them.<sup>18</sup>

### RECOMMENDATIONS

#### Cancer registries

Population-based cancer registries provide insight into the burden of cancer by recording data for each patient diagnosed with a malignancy in the territory that they cover. Information from population-based cancer registries on trends in socioeconomic, geographic or racial differences in incidence and survival can be used to plan and refine public health policy. Similar problems that arise in all countries suggest common solutions. However, specific differences between countries suggest the need to look more closely at subpopulations within each country or region, to understand better how to optimise breast cancer care for underserved women worldwide. Cancer registry data, expanded with detailed



information on stage, tumour biomarkers, treatment and recurrent disease, can also help to evaluate guideline implementation and to measure the impact of new treatment regimens in daily practice. Cancer registries need long-term political, legal and financial support to do their job.<sup>19</sup>

### Multidisciplinary meeting

Today, breast cancer care requires an integrated team approach by clinicians within a breast unit. High-quality management of breast cancer should be part of daily practice along with routine use of the MDM. Teleoncology may be helpful, but it requires efficient technologies and optimal presenter preparation. Human resources and technological barriers must be addressed to realise its full impact, especially in developing countries.<sup>20</sup>

### Prevention and early diagnosis

Preventive actions include a reduction in alcohol consumption and an increase in physical activity. However, while prevention is key, it is also long term; therefore, early diagnosis and access to effective treatment remain crucial. Public awareness is more important in LMICs, whereas screening is more effective in HICs.

### Quality

Quality management should be part of the daily practice of each breast centre and can be enhanced by accreditation programmes and continuing education for doctors, nurses and the entire breast cancer team.<sup>21</sup> The identification of QIs for each specific diagnostic and treatment area is mandatory, including both minimal and ideal requirements. Clarity of the goals of treatment and informing patients at all stages of the disease are paramount to decide the actions to be taken. Guidelines adherence is associated with improved patient outcomes.

### Primary care

A strong primary care presence is necessary to guide patients through the entire care pathway. The shortage of general practitioners around the world requires a strategy addressing the needs of each country and not the preferences of the medical faculty. A system in which at least 50% of the physicians are primary care doctors will probably have better health outcomes and lower costs, especially in LMICs.<sup>22</sup> The global shortfall in the nursing workforce will also result in worsening healthcare systems.

### Cost

Breast cancer costs are increasing due to rising patient numbers coupled with increasing treatment cost. Accessibility and health coverage are more important in LMICs while uniform distribution of healthcare burdens HICs. Health economics can assist decision makers to adopt and reimburse care that is affordable and efficient. WHO provides a list of minimal required cancer medicines for all patients worldwide. The only

viable road is to agree on a broad framework, encompassing both patient values and societal values.

### Executives

Government, local authorities and national cancer plans are the most important components to address the cancer burden and coordinate the required actions. Encouragement of national attention to breast cancer care will be necessary to achieve optimal outcomes. In LMICs, health-care networks should be defined to connect surrounding areas to centres of excellence. Accessibility and health coverage are particularly important in these countries. Comprehensive financial protection with social health insurance programmes and tax-based financing systems must be promoted in both LMICs and HICs.

### Research

A new model - for clinical breast cancer research is needed. It should be based on the latest understanding of cancer biology, ensuring that women with breast cancer in all countries can benefit from the latest advances in diagnosis and treatment. More clinical trials are needed to assess new surgical and radiotherapy regimens for breast cancer. Epidemiological studies using population-based cancer registry data are also needed to evaluate whether the benefits from clinical trials have been made available to all patients with cancer and to obtain new knowledge on the effects of interventions on the daily life of patients with breast cancer, such as elderly patients who are often excluded from clinical trials. Clear endpoints must be defined to consider the patients' needs, including PROMs.<sup>23</sup>

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