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Short Communication

Two Worlds of Oncology: Bridging Disparities in Cancer Care Between Resource-Limited and High-Income Settings

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Abstract

Background
Cancer care delivery varies significantly between high-income countries and low- and middle-income countries (LMICs), reflecting differences not only in infrastructure but also in clinical approach, access, and survivorship care.

Objective
To examine the systemic and practical differences in oncology care across settings and highlight the emerging role of clinical trials and real-world data from LMICs in shaping equitable cancer care.

Discussion
In high-income settings, oncology care is characterized by early detection, precision diagnostics, multidisciplinary management, and structured survivorship programs. Conversely, LMICs often face delayed diagnoses, limited diagnostic capacity, treatment interruptions, and financial barriers. These differences lead to disparities in survival, symptom burden, and long-term outcomes. Importantly, LMICs represent a crucial yet underrepresented context for clinical trials, particularly given the higher prevalence of advanced-stage disease. Expanding research infrastructure and capturing real-world data in these regions can generate context-relevant evidence, improve access to novel therapies, and inform global guidelines.

Conclusion
Bridging the oncology care gap requires strengthening health systems, improving access to diagnostics and treatment, integrating survivorship care, and expanding research efforts in LMICs. A more equitable future in oncology depends on aligning survival outcomes with quality of life and ensuring that care delivery is both context-sensitive and patient-centered.

Introduction

Cancer care across the globe reflects profound inequities that extend beyond resource availability to encompass differences in philosophy, timing, and continuity of care. In high-income countries, oncology systems are generally designed around early detection, comprehensive diagnostics, and coordinated multidisciplinary management. In contrast, resource-limited settings often contend with late-stage presentation, constrained access to care, and fragmented health

systems [1, 2]. These disparities influence not only survival but also treatment experience, symptom burden, and the patient's ability to resume social and functional roles after therapy [3].

Discussion

Differences in Care Delivery and System Structure

In well-resourced environments, cancer care pathways re typically proactive and structured, supported by timely diagnostics, advanced imaging, and molecular profiling [4]. Multidisciplinary care and integrated supportive services are standard components of treatment [5]. In contrast, LMICs face systemic barriers including limited diagnostic capacity, workforce shortages, medication inaccessibility, and high out-of-pocket costs [6, 7]. Radiotherapy access remains particularly limited in many regions, further widening the treatment gap [8]. As a result, care pathways are often reactive and fragmented.

Impact on Outcomes and Survivorship

Survival alone does not fully reflect the burden of cancer. Long-term toxicities such as fatigue, neuropathy, cardiotoxicity, and psychological distress significantly affect survivors' quality of life [9, 10].

High-income countries increasingly recognize survivorship as a distinct phase of care, supported by structured follow-up systems [11]. In contrast, survivorship care remains underdeveloped in many LMICs, leading to persistent unmet needs and poorer functional outcomes [12].

Role of Clinical Trials and Research in LMICs

LMICs represent a critical yet underrepresented setting for oncology research. Expanding clinical trial access can improve outcomes by providing patients with novel therapies while strengthening research capacity [13, 14]. Real-world data (RWD) from LMICs is equally important. Such data captures treatment patterns, adherence, and outcomes in routine practice, offering insights that are often not reflected in randomized controlled trials [15]. Incorporating RWD into global evidence frameworks can enhance the applicability of guidelines across diverse populations [16].

Toward Equitable Cancer Care

Addressing disparities requires strengthening early detection programs, improving access to diagnostics and therapies, and integrating palliative and supportive care [17]. Resource-stratified guidelines provide a practical approach to adapting cancer care to varying levels of resource availability [18]. Incorporating patient-reported outcomes into care delivery is also essential to ensure that treatment success is measured not only by survival but by quality of life [19].

Conclusion

The divide between oncology care in high-income and resource-limited settings is defined not only by treatment availability but by the completeness of care. Bridging this gap requires coordinated system-level interventions, expanded research inclusion, and a commitment to patient-centered outcomes. Ultimately, cancer care must aim beyond disease control toward dignity, recovery, and quality of life [20].

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References

1. Bray F, Jemal A, Grey N, Ferlay J, Forman D (2012) Global cancer transitions according to the Human Development Index. Lancet Oncol 13(8): 790-801.
2. Farmer P, Frenk J, Knaul FM, Shulman LN, Alleyne G, et al. (2010) Expansion of cancer care and control in countries of low and middle income. Lancet 376(9747): 1186-1193.
3. Sullivan R, Alatise OI, Anderson BO, Audisio R, Autier P, et al. (2015) Global cancer surgery: delivering safe, affordable, and timely cancer surgery. Lancet Oncol 16(11): 1193-1224.
4. Dienstmann R, Vermeulen L, Guinney J, Kopetz S, Tejpar S, et al. (2017) Consensus molecular subtypes and precision medicine in colorectal cancer. Nat Rev Cancer 17(2): 79-92.
5. Prades J, Remue E, van Hoof E, Borras JM (2015) Is it worth reorganizing cancer services on the basis of multidisciplinary teams? A systematic review of the objectives and organisation of MDTs and their impact on patient outcomes. Health Policy 119(4): 464-474.
6. Atun R, Jaffray DA, Barton MB, Bray F, Baumann M, et al. (2015) Expanding global access to radiotherapy. Lancet Oncol 16(10): 1153-1186.
7. Knaul FM, Arreola-Ornelas H, Rodriguez NM, Barreto IC, Frenk J (2018) Avoidable mortality: the core of the global cancer divide. J Glob Oncol 4: 1-12.

8. Datta NR, Samiei M, Bodis S (2014) Radiation therapy infrastructure and human resources in low- and middle-income countries. present status and projections for 2020. Int J Radiat Oncol Biol Phys 89(3): 448-457.
9. Miller KD, Nogueira L, Mariotto AB, Rowland JH, Yabroff KR, et al. (2019) Cancer treatment and survivorship statistics, 2025. CA Cancer J Clin 75(4): 308-340.
10. Bower JE (2014) Cancer-related fatigue mechanisms, risk factors, and treatments. Nat Rev Clin Oncol 11(10): 597-609.
11. Alfano CM, Jefford M, Maher J, Birken SA, Mayer DK (2019) Building personalized cancer survivorship care pathways. Am Soc Clin Oncol Educ Book 39: 625-639.
12. Nekhlyudov L, Mollica MA, Jacobsen PB, Mayer DK, Shulman LN, et al. (2019) Developing a quality of cancer survivorship care framework: Implications for Clinical Care, Research, and Policy. J Natl Cancer Inst 111(11): 1120-1130.
13. Gyawali B, Parsad S, Feinberg BA, Nabhan C (2017) Real-World Evidence and Randomized Studies in the Precision Oncology Era: The Right Balance. JCO Precis Oncol 1: 1-5.
14. Ginsburg O, Yip CH, Brooks A, Cabanes A, Caleffi M, et al. (2020) Breast cancer early detection: A phased approach to implementation. Cancer 126 Suppl 10(Suppl 10): 2379-2393.
15. Booth CM, Karim S, Mackillop WJ (2019) Real-world data: towards achieving the achievable in cancer care. Nat Rev Clin Oncol 16(5): 312-325.
16. Makady A, de Boer A, Hillege H, Klungel O, Goettsch W (2017) What Is Real-World Data? A Review of Definitions Based on Literature and Stakeholder Interviews. Value Health 20(7): 858-865.
17. (2017) World Health Organization. Guide to cancer early diagnosis. Geneva, Switzerland.
18. Anderson BO, Ilbawi AM, El Saghir NS (2015) Breast cancer in low and middle income countries (LMICs): a shifting tide in global health. Breast J 21(1): 111-118.
19. Basch E (2017) Patient-reported outcomes—harnessing patients' voices. N Engl J Med 376(2): 105-108.
20. Horton S, Gauvreau CL (2021) Cancer in low- and middle-income countries: An Economic Overview. In: Dean TJ, Prabhat KJ, Rengaswamy S, Susan EH (Eds.), Cancer: Disease Control Priorities. (3rd edn), Washington (DC): The International Bank for Reconstruction and Development / The World Bank.