



OPEN ACCESS

EDITED AND REVIEWED BY
Mihai Dorin Vartolomei,
Medical University of Vienna, Austria

*CORRESPONDENCE
Mohammed Shahait
✉ mshahait@yahoo.com

SPECIALTY SECTION
This article was submitted to
Urologic Oncology,
a section of the journal
Frontiers in Urology

RECEIVED 23 February 2023

ACCEPTED 20 March 2023

PUBLISHED 30 March 2023

CITATION
Shahait M, Alsyof M, Abu-Gheida I
and Maluf F (2023) Editorial:
Genitourinary (GU) oncology in
low-to-middle income countries.
Front. Urol. 3:1172370.
doi: 10.3389/fruro.2023.1172370

COPYRIGHT
© 2023 Shahait, Alsyof, Abu-Gheida and
Maluf. This is an open-access article
distributed under the terms of the [Creative
Commons Attribution License \(CC BY\)](#). The
use, distribution or reproduction in other
forums is permitted, provided the original
author(s) and the copyright owner(s) are
credited and that the original publication in
this journal is cited, in accordance with
accepted academic practice. No use,
distribution or reproduction is permitted
which does not comply with these terms.

Editorial: Genitourinary (GU) oncology in low-to-middle income countries

Mohammed Shahait^{1,2*}, Muhannad Alsyof³,
Ibrahim Abu-Gheida⁴ and Fernando Maluf⁵

¹Department of Surgery, King Hussein Medical Center, Amman, Jordan, ²Department of Urology, University of Sharjah, Sharjah, United Arab Emirates, ³Department of Urology, University of Southern California, Los Angeles, CA, United States, ⁴Department of Radiation Oncology, Cleveland Clinic Abu Dhabi, Abu Dhabi, United Arab Emirates, ⁵Department of Medicine, Albert Einstein Israelite Hospital, São Paulo, Brazil

KEYWORDS

low to middle income countries, oncology, disparity, access and quality, urology

Editorial on the Research Topic

Genitourinary (GU) oncology in low-to-middle income countries

While cancer is accountable for one in every six deaths around the world, 70% of those deaths are registered in low-middle income countries (LMICs) (1). As such, Genitourinary (GU) malignancies such as prostate, renal, bladder, urethral, testicular, and penile cancers represent almost 12.7% of all newly diagnosed cancer in the world in 2020 and 8% of cancer death globally (2).

Over the last few decades, several local and international initiatives succeeded in improving resources allocations to curb cancer associated mortality and to mitigate its impact on quality of life; nevertheless, only 5% of these resources are designated for LMICs (3).

There is scarce data available in regards to the nature and the challenges of genitourinary (GU) oncology practice in LMICs across the globe. Therefore, there is an exigent need to address the status of GU oncology practice in this part of the world. In this special issue of Frontiers urology, we aimed to provide insight about different aspects of GU oncology practice and research in LMICs.

In this Research Topic's first article, [Ibrahim et al.](#) from the Global Health Institute at the American University of Beirut, conducted a bibliometric analysis of scientific publications on GU cancer in 22 Arab countries. This type of research helps in understanding the growth, impact, trends, and flow of knowledge within GU cancer research. The authors found that despite increasing research productivity in the Arab World; the quality, focus topics, and cross-country collaborations are still lagging, compounded by under-representation of women in GU cancer research. The findings from this study act as a harbinger bell for building research infrastructure, capacity, and collaborations.

Likewise, [Choksi et al.](#) assessed disparities in clinical trials for benign and malignant urological pathologies in low to middle income countries. Across the different search queries, LMICs represented a higher proportion of non-oncologic urologic clinical trials as compared to their representation of urologic oncology clinical trials ($z = -16.05, p < 0.001$).

For example, only 1.83% of prostate cancer clinical trials registered in two databases are being performed in LMICs. On the other hand, clinical trials to address the management of lower urinary tract symptoms in LMICs were 8.33%. Furthermore, the authors found a weak relationship between the global burden of disease and the number of clinical trials conducted in each country for different urologic conditions.

In developed countries, access to new systemic treatments for different GU malignancies is influenced by several factors such as race, socio-economic status, and the structure of healthcare. However, in LMIC, patients face more intricate challenges to receive novel systematic therapies for GU malignancies. This was eloquently described by Herchenhorn et al. in their comprehensive review in which they proposed a multifaceted framework to improve access to new systematic treatments in LMICs, improve medications pricing, and consideration in future clinical trials design to mitigate the cost.

The “Obesity paradox” is a well-studied phenomenon in oncology field, where obese patients tend to have improved overall survival compared to normal weight patients, yet data replicating these findings in countries outside of North America and Europe are sparse (Moreira et al.). Moreira et al. performed a retrospective, multicenter study to assess the clinical outcome including overall survival (OS) of Brazilian patients with advanced cancer treated with ICI according to baseline body mass index (BMI). This cohort composed predominantly of patients with stage IV lung cancer (57%) and melanoma (19%). There was no statistically significant difference in the median OS of the obese group to the non-obese group (BMI < 30 kg/m²). These findings emphasize that observations made in cohorts from clinical trials conducted in developed countries might not be perceived in real-world setting.

The disparities between countries in the treatment of GU malignancies is evident, and more pronounced in LMICs. This

gap in care is exacerbated by the shortage of physicians in countries with insufficient resources and exodus of physicians to work in higher income countries. Also, lack of funding, inability to negotiate drug pricing, and lack of education and training opportunities for healthcare professionals play a major role in the disparity observed in the treatment of different GU malignancies. We also believe that the World Health Organization (WHO), and other international bodies, should develop comprehensive programs to tackle the different issues facing healthcare systems in LMICs.

Author contributions

MS: Writing. MA: Writing and editing. IG: Editing. FM: Writing, editing, and supervision. All authors contributed to the article and approved the submitted version.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

References

1. World Health Organization (WHO). *Cancer: key facts sheet* (2018). Available at: <https://www.who.int/news-room/fact-sheets/detail/cancer> (Accessed Feb 5, 2023).
2. Sung H, Ferlay J, Siegel RL, Laversanne M, Soerjomataram I, Jemal A, et al. Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA: Cancer J Clin* (2021) 71(3):209–49. doi: 10.3322/caac.21660
3. World Health Organization. *Technical report: Pricing of cancer medicines and its impacts: A comprehensive technical report for the world health assembly resolution 70.12: Operative paragraph 2.9 on pricing approaches and their impacts on availability and affordability of medicines*. Geneva: World Health Organization (2018).