

Prostate Cancer Clinical Trials in Low-Middle Income Countries (LMICs)

Sattam A. Halaseh¹, Amro Al-Karadsheh², Deborah Mukherji³, Abdelrahman Aljahaja⁴, Ala'a Farkouh⁵, Akram Al-Ibraheem⁶, Ibrahim Abu Gheida⁷, Sultan Al-Khateeb⁸, Humaid Al-Shamsi⁹, Mohammed Shahait¹⁰

¹ Urology Department, Torbay and South Devon NHS Foundation Trust, Torbay Hospital, Torquay, GBR

² General Medicine, Lincoln County Hospital, United Lincolnshire Hospitals NHS Trust.

³ Department of Internal Medicine, Hematology/Oncology Division, American University of Beirut Medical Center, Riad El Solh, Beirut 1107 2020, Lebanon.

⁴ Hashemite University, Zarqa, Jordan

⁵ American Center for Reproductive Medicine, Cleveland Clinic, Cleveland, OH, USA

⁶ Chairman, Department of Nuclear Medicine & PET/CT, King Hussein Cancer Centre, Jordan.

⁷ Radiation Oncology Staff Physician, Cleveland Clinic Abu Dhabi, UAE

⁸ Urology Department – Riyadh, KSA.

⁹ Director of Oncology at Burjeel Cancer Institute / VPS Oncology UAE

¹⁰ Surgery Department, Clemenceau Medical Center, Dubai, UAE

Correspondence to: Sattam A. Halaseh, Email: halasehsattam1@outlook.com
Mohammad Shahait, email : mshahait@yahoo.com

Abstract

Background

Prostate cancer is the second most common form of cancer and a leading cause of cancer-related deaths in men. In an era of evidence-based medicine, clinical trials plays a very critical role, and the adherence to best practices is crucial in managing a complicated and non-communicable disease such as prostate cancer. For this reason extrapolating research conducted in high-income countries (HICs) to low-middle income countries (LMICs) may lead to incorrect findings or treatment plans for patients in these areas. Unfortunately, conducting clinic trials in LMICs face several challenges in design, funding, and recruitment. This study aims to examine the clinical trials on prostate cancer in LMICs, including the scope of these trials, the type of interventions being tested, and the funding sources.

Methods

A search of the Cochrane Library Controlled Trials Registry was conducted between January 2010 and June 2021 using keywords including: “prostate cancer” ,“prostate adenocarcinoma”, “prostate tumour”). Trials were classified into either high-income or

low/middle-income countries based on the World Bank Atlas classification. A descriptive analysis was performed, to determine the characteristics of the trials.

Results

A total of 3,455 clinical trials for prostate cancer were conducted globally, with 542 (15.68%) being conducted LMICs. The majority of these trials (89%) were registered in upper-middle-income countries, with none being conducted in low-income countries. The majority of trials were prospective studies 98.1%, with 65.2% being randomized, and 57% being phase III. 48.4% of the trials aimed to recruit less than 500 subjects. The main source of funding was pharmaceutical companies in 78.1% of cases, followed by institutional funds (16.1%) and public funds (5.8%). At the time of the search query, 74.6% of the trials were inactive, with 37% being completed, 5% terminated due to insufficient funding, and 75% terminated due to medical inefficacy or poor accrual. The majority of trials (88.2%) were interventional, with only 6% focusing on screening and prevention, and 2% designed for palliative care

Conclusion: This study sheds light on the challenges faced in conducting prostate cancer clinical trials in LMICs. The findings underline the need for improved support from international organizations and pharmaceutical companies in order to bridge the gaps in prostate cancer research and facilitate collaboration between researchers in LMICs and other countries.