

# Characterization of Patients with Prostate Cancer in Colombia from a Real-World Multicenter from a healthcare resource utilization (HRU) Study

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## Introduction

Prostate cancer (PC) remains a leading cause of morbidity and mortality among men in Colombia; however, evidence regarding its clinical management and patterns of resource utilization is limited (1).

Characterizing PC through real-world data provides critical insights into the implementation of clinical guidelines in routine practice. In middle-income settings such as Colombia, socioeconomic determinants play a decisive role in disease progression and access to treatment (2).

Generating robust local evidence based on RWD is therefore essential to support health economic analyses, budget impact assessments, and value-based decision-making, contributing to a more efficient and equitable allocation of healthcare resources within the Colombian health system.

## Objectives

To describe the sociodemographic and clinical characteristics, as well as the risk profile, of a cohort of patients with prostate cancer (PC) treated at four high-complexity institutions in Colombia

## Methods



### Study Design

- ✓ A retrospective, descriptive study was conducted based on a healthcare resource utilization (HRU) algorithm to categorize patients into prostate cancer (PC) states using administrative and billing/invoicing records.
- ✓ Statistical tests comparing means and proportions by metastasis state were performed at a 5% significance level

### Population



The analysis included patients aged ≥18 years with a confirmed diagnosis of PC (ICD-10: C61X) at any stage, treated between 2021 and 2024 in four centers in Bogota, Apartado, Cali, and Valledupar, Colombia

### HRU as a proxy for staging classification



Characteristics were compared between non-metastatic (nmPC) and metastatic (mPC) patients using an approach based on HRU. To address the missing metastasis data, patients treated with chemotherapy plus anti-androgens and/or bone protectors were classified as metastatic.

## Results

A total of 2,028 patients were included (mean age: 72.9 ± 9.7 years). The cohort was predominantly from Bogotá (63%), low income (69%), and affiliated with the contributory regime (71%). Clinically, 86.7% presented non-metastatic disease (86% locally advanced), while 13.2% had metastatic disease (80% hormone-sensitive).

Table 1. Baseline characteristics

Characteristic	N	Overall N = 2,028 <sup>1</sup>	Non-Metastatic N = 1,760 <sup>1</sup>	Metastatic N = 268 <sup>1</sup>	p-value <sup>2</sup>
<b>Age (years)</b>	2,028	72.9 (8.7)	72.8 (8.6)	73.7 (9.3)	0.120
<b>Insurance regime</b>	2,028				<0.001
Contributory		1,665 (82%)	1,472 (84%)	193 (72%)	
None		182 (9.0%)	137 (7.8%)	45 (17%)	
Subsidized		163 (8.0%)	136 (7.7%)	27 (10%)	
Prepaid medicine		16 (0.8%)	14 (0.8%)	2 (0.7%)	
Special		2 (<0.1%)	1 (<0.1%)	1 (0.4%)	
<b>Socioeconomic stratum</b>	2,009				0.007
1. Low-low		1,409 (70%)	1,220 (70%)	189 (74%)	
2. Low		315 (16%)	276 (16%)	39 (15%)	
3. Middle-low		265 (13%)	242 (14%)	23 (8.9%)	
4. Middle		10 (0.5%)	5 (0.3%)	5 (1.9%)	
5. Middle-high		6 (0.3%)	6 (0.3%)	0 (0%)	
6. High (or Upper)		4 (0.2%)	3 (0.2%)	1 (0.4%)	
<b>Therapeutic Procedures and Medications</b>					
Radical prostatectomy	2,028	415 (20%)	361 (21%)	54 (20%)	0.891
Radiotherapy	482	126 (26%)	100 (27%)	26 (23%)	0.386
Chemotherapy	2,028	93 (4.6%)	21 (1.2%)	72 (27%)	<0.001
Brachytherapy	482	19 (3.9%)	13 (3.5%)	6 (5.3%)	0.409
Castration	2,028	313 (15%)	269 (15%)	44 (16%)	0.632
Antiandrogens	2,028	340 (17%)	221 (13%)	119 (44%)	<0.001
Bone protectors	2,028	88 (4.3%)	0 (0%)	88 (33%)	<0.001
<b>Clinical events of interest</b>					
History of pathological fractures	135	6 (4.4%)	4 (4.0%)	2 (5.9%)	0.641
Referral to neuropsychology / psychology / neurology	482	116 (24%)	89 (24%)	27 (24%)	0.961

<sup>1</sup>n (%); Mean (SD)

<sup>2</sup>Fisher's exact test; Welch Two Sample t-test; NA; Pearson's Chi-squared test

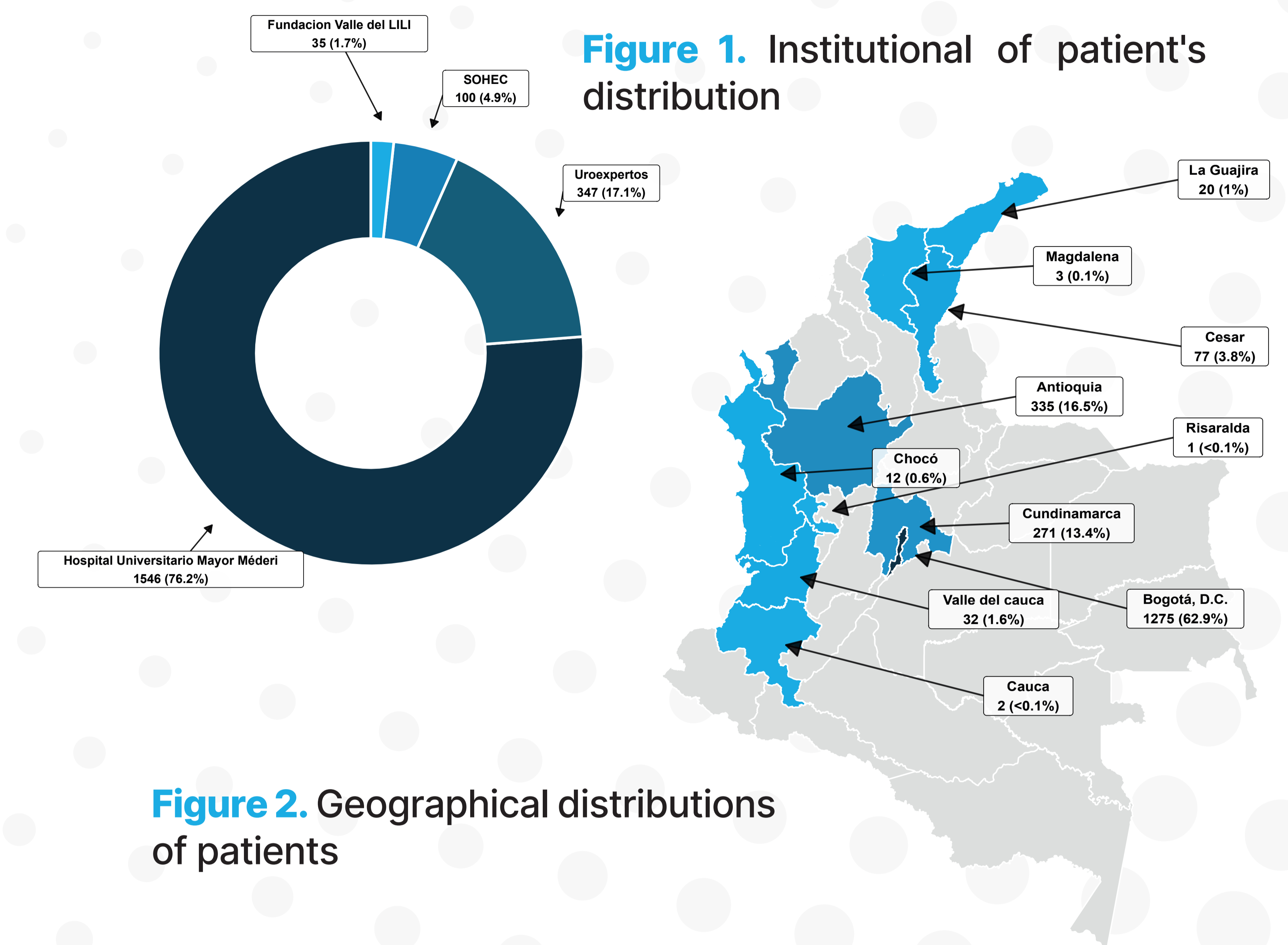
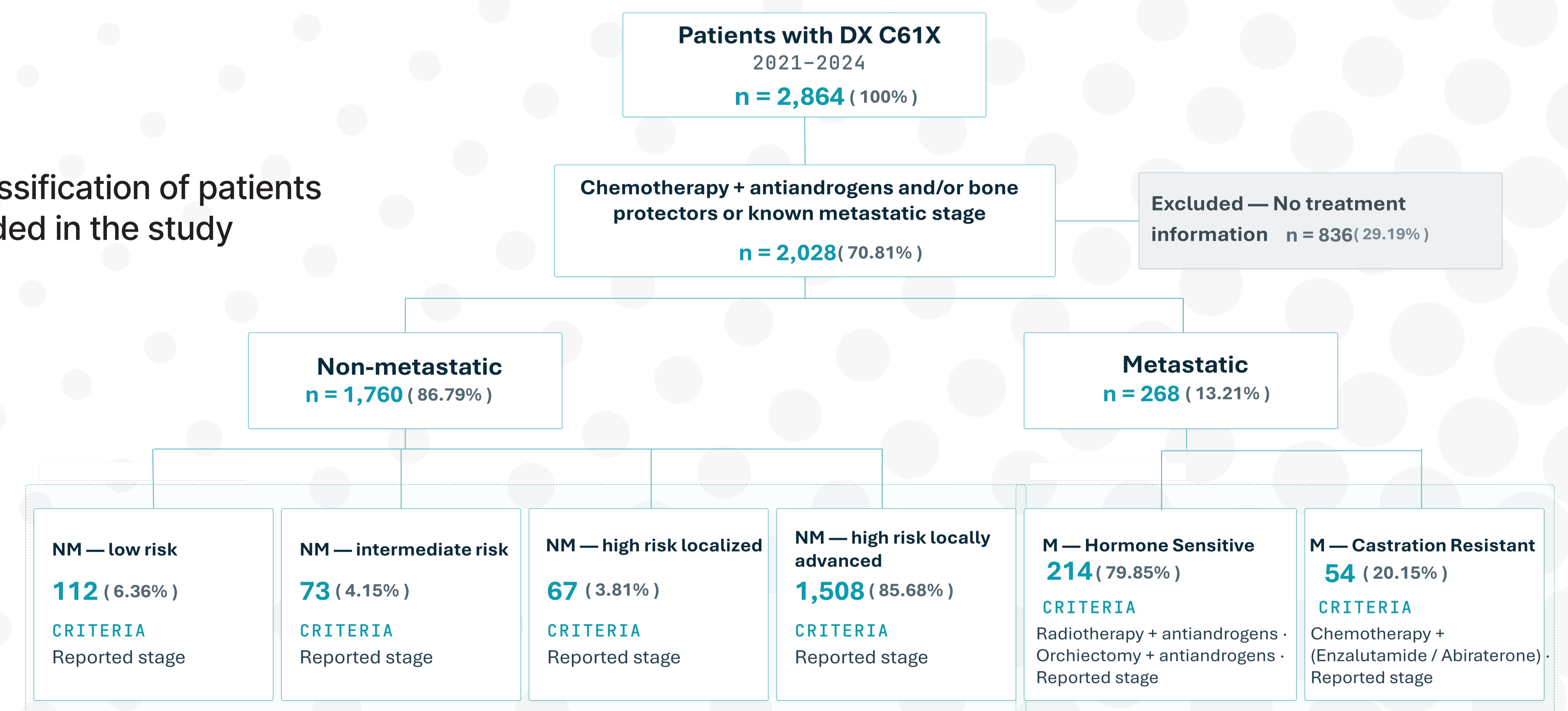


Figure 2. Geographical distributions of patients

Figure 3. Algorithm for classification of patients with prostate cancer included in the study



## Conclusions

This study provides critical real-world evidence from a developing country, characterizing a population with predominantly low socioeconomic status. While the results confirmed that mPC needs significantly intensified management with antiandrogens and bisphosphonates, the high prevalence of locally advanced disease underscores the urgent need for early detection initiatives to optimize both clinical prognosis and economic efficiency in resource-constrained settings.

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