In this disease state, men are at risk for developing bone metastases, which are associated with significant morbidity and may negatively impact survival.1,2 Prostate-specific antigen (PSA) is a well-known prostate cancer (PC) biomarker.3 To estimate the proportion (%) of patients with CRPC among men with M0 PC actively treated with ADT between March 2010 and February 2011

Data on the proportion of M0 PC patients on ADT who become castration-resistant are scant, which may partly be a result of the lack of universally accepted definition of CRPC.

In this disease state, men are at risk for developing bone metastases, which are associated with significant morbidity and may negatively impact survival.1,2 Prostate-specific antigen (PSA) is a well-known prostate cancer (PC) biomarker.3

The base study cohort included men aged 18 years or March 1, 2010, with an ICD-9 code for PC (185) at any point in the medical record (data extend back to 2002). We further restricted to those with evidence of at least 6 months of treatment (based on GnRH treatment dates) to exclude intermittent users.

- Receipt of at least one gonadotropin-releasing hormone (GnRH) prescription in the current year (March 2010 – February 2011) AND at least one GnRH treatment included agonist/antagonist therapy (degarelix, goserelin acetate implant, leuprolide acetate, leuprolide acetate implant, and triptorelin).

- Since there is no single definition of what constitutes “high-risk”, we also explored additional subsets of patients using combinations of the following:

- PSA thresholds: ≥ 8 ng/mL and ≥ 20 ng/mL

- PSA doubling time: ≤ 4 months, ≤ 6 months, ≤ 8 months, and ≤ 10 months

- t = time interval between the two PSA values

- ln denotes natural logarithm

- Of 1,818 men with M0 PC receiving ADT ≥ 6 months, 646 met CRPC criteria in urology and oncology clinics.

- When different combinations of PSA thresholds and doubling times were explored (e.g., PSA ≥ 8 ng/mL, and/or doubling time ≤ 10 months), PSA doubling time explained 32% (44% / 70%) to 93% (65% / 70%) of subgroup eligibility, and emerged as a main driver in defining increased risk of developing bone metastases for CRPC subsets. The cross-sectional nature of this analysis did not allow us to properly assess the clinical utility of these PSA-based criteria for identifying M0 PC patients at high risk for developing bone metastases. An important next step would be to measure the absolute risk of bone metastases in these patient subsets in a randomized setting.

- There is no single definition of what constitutes “high-risk”, we also explored additional subsets of patients using combinations of the following:

- PSA thresholds: ≥ 8 ng/mL and ≥ 20 ng/mL

- PSA doubling time: ≤ 4 months, ≤ 6 months, ≤ 8 months, and ≤ 10 months

- t = time interval between the two PSA values

- ln denotes natural logarithm

- Of 1,818 men with M0 PC receiving ADT ≥ 6 months, 646 met CRPC criteria in urology and oncology clinics.

- When different combinations of PSA thresholds and doubling times were explored (e.g., PSA ≥ 8 ng/mL, and/or doubling time ≤ 10 months), PSA doubling time explained 32% (44% / 70%) to 93% (65% / 70%) of subgroup eligibility, and emerged as a main driver in defining increased risk of developing bone metastases for CRPC subsets. The cross-sectional nature of this analysis did not allow us to properly assess the clinical utility of these PSA-based criteria for identifying M0 PC patients at high risk for developing bone metastases. An important next step would be to measure the absolute risk of bone metastases in these patient subsets in a randomized setting.

- There is no single definition of what constitutes “high-risk”, we also explored additional subsets of patients using combinations of the following:

- PSA thresholds: ≥ 8 ng/mL and ≥ 20 ng/mL

- PSA doubling time: ≤ 4 months, ≤ 6 months, ≤ 8 months, and ≤ 10 months

- t = time interval between the two PSA values

- ln denotes natural logarithm

- Of 1,818 men with M0 PC receiving ADT ≥ 6 months, 646 met CRPC criteria in urology and oncology clinics.

- When different combinations of PSA thresholds and doubling times were explored (e.g., PSA ≥ 8 ng/mL, and/or doubling time ≤ 10 months), PSA doubling time explained 32% (44% / 70%) to 93% (65% / 70%) of subgroup eligibility, and emerged as a main driver in defining increased risk of developing bone metastases for CRPC subsets. The cross-sectional nature of this analysis did not allow us to properly assess the clinical utility of these PSA-based criteria for identifying M0 PC patients at high risk for developing bone metastases. An important next step would be to measure the absolute risk of bone metastases in these patient subsets in a randomized setting.