

# Use of bone health agents (BHAs) in patients with metastatic castration-resistant prostate cancer (mCRPC) treated with radium-223 after abiraterone: An interim review of REASSURE

## Background

When the radium-223 Phase III clinical trial (ALSYMPCA) was conducted, abiraterone was an investigational agent that was only available through clinical trials. REASSURE is a prospective, observational clinical study of radium-223 in patients with mCRPC with a 7-year follow-up (NCT02141438). Patients could have had anti-hormonal agents, such as abiraterone, prior to receiving radium-223. The objective of this interim review was to evaluate the fractures and symptomatic skeletal events (SSEs) based on prior abiraterone use and the use of BHAs, denosumab and bisphosphonates.

## Methods

Descriptive statistics were generated for baseline characteristics, fractures, SSEs, and overall survival (OS) by BHA use in patients who had completed abiraterone treatment prior to receiving radium-223 (prior abiraterone) or who had no prior abiraterone (abiraterone-naïve). SSEs consisted of events reported as “musculoskeletal” adverse events (fracture, spinal cord compression, radiotherapy to bone, surgery, and SSE documented as a type of progression).

## Results

As of November 2017, 1439 patients were enrolled, with a median follow-up time of 9.1 months. 720 (50%) patients had received BHAs prior to, concomitantly with, or after radium-223. 431 (30%) patients received prior abiraterone; 675 (47%) patients were considered abiraterone-naïve. For the prior-abiraterone group, median time of exposure to abiraterone was 11 months. The median time from diagnosis of CRPC to initiation of radium-223 was 9 months in abiraterone-naïve patients and 23 months in prior-abiraterone patients. In the prior-abiraterone group, SSEs occurred in 18% and 25% of patients with and without BHAs, respectively. In the abiraterone-naïve group, 19% of patients with BHAs and 20% of those without BHAs had SSEs. Fractures were reported in 10/431 patients (2%) in the prior-abiraterone group. In the abiraterone-naïve group, fractures were reported in 5/302 (2%) and 11/373 (3%) patients with and without BHAs, respectively. OS from the initiation of radium-223 initiation was 15.5 months in the abiraterone-naïve group and 11.3 months in the prior-abiraterone group.

## Conclusion

Similar rates of fractures were observed in abiraterone-naïve patients and those who received abiraterone prior to radium-223. Patients with prior abiraterone treatment had a shorter OS, and these patients received radium-223 at a later time during their disease course, as reflected by a longer time from CRPC to radium-223 initiation.

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## Email Address

joe.osullivan@qub.ac.uk

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**Primary author:** Dr O’SULLIVAN, Joe M. (Center for Cancer Research and Cell Biology, Queen’s University Belfast, Northern Ireland Cancer Center, Belfast City Hospital, Belfast, Northern Ireland)

**Co-authors:** Dr TOMBAL, Bertrand (Cliniques Universitaires Saint-Luc, Brussels, Belgium); Dr HIGANO, Celestia (University of Washington, Seattle, WA, USA); Dr LOGOTHETIS, Christopher (MD Anderson Cancer Center, Houston, TX, USA); Dr STERNBERG, Cora N. (Englander Institute for Precision Medicine, Weill Cornell, New York, New York, USA); Dr BOTTOMLEY, David (St. James’s University Hospital, Leeds, UK); Dr SAAD, Fred (University of Montreal Hospital Center, Montreal, Quebec, Canada); Dr BAYH, Inga (Bayer AG, Wuppertal, Germany); Dr KALINOVSKY, Jan (Bayer Consumer Care AG, Basel, Switzerland); Dr BELLMUNT, Joaquim (Dana-Farber Cancer Institute, Boston, MA, USA); Dr LOGUE, John (The Christie NHS Foundation Trust, Manchester, UK); Dr SADE, Juan P. (Instituto Alexander Fleming, Buenos Aires, Argentina); Dr MILLER, Kurt (Charité Berlin, Berlin, Germany); Dr HARSHMAN, Lauren (Dana-Farber Cancer Institute, Boston, MA, USA); Dr SCHOSTAK, Martin (Department of Urology, University of Magdeburg, Magdeburg, Germany); Dr SARTOR, Oliver (Tulane University School of Medicine, New Orleans, LA, USA); Dr DIZDAREVIC, Sabina (Brighton & Sussex University Hospitals NHS Trust, Brighton, UK); BALDARI, Sergio (Nuclear Medicine Unit, University of Messina, Messina, Italy); RICHARDSON, Timothy (Wichita Urology, Wichita, KS, USA)

**Presenter:** Dr O’SULLIVAN, Joe M. (Center for Cancer Research and Cell Biology, Queen’s University Belfast, Northern Ireland Cancer Center, Belfast City Hospital, Belfast, Northern Ireland)