

abnormalities were observed in 11.3% AA vs 8.9% placebo, and cardiac disorders were observed in 15.9% AA vs 11.7% placebo patients.

**Conclusions:** AA statistically significantly prolonged median OS in patients with mCRPC who have progressed post-docetaxel. With longer follow-up, the magnitude of the treatment effect of AA on OS increased and no new safety issues were detected. The OS benefit demonstrated across subgroups was generally consistent with that seen in the overall patient population. Clinical benefit was maintained in older patients and in those with visceral disease. The present results further confirm the benefit provided by AA in patients with mCRPC.

## 7001

ORAL

### Abiraterone Acetate Improves Functional Status in Patients With Metastatic Castration-resistant Prostate Cancer (mCRPC) Post-docetaxel – Results From the COU-AA-301 Phase 3 Study

S. Harland<sup>1</sup>, J.S. de Bono<sup>2</sup>, C.M. Haqq<sup>3</sup>, J.N. Staffurth<sup>4</sup>, Y. Hao<sup>5</sup>, D. Gagnon<sup>6</sup>, C. Liu<sup>3</sup>, C.N. Sternberg<sup>7</sup>, A. Molina<sup>3</sup>, H.I. Scher<sup>8</sup>. <sup>1</sup>UCL Cancer Institute, Oncology, London, United Kingdom; <sup>2</sup>The Institute for Cancer Research, Royal Marsden Hospital, Sutton, United Kingdom; <sup>3</sup>OrthoBiotech Oncology Research & Development (A Unit of Cougar Biotechnology), Los Angeles CA, USA; <sup>4</sup>Cardiff University, Velindre Hospital, Cardiff, United Kingdom; <sup>5</sup>Johnson & Johnson Pharmaceutical Services, Global Strategic Marketing & Market Access, Raritan NJ, USA; <sup>6</sup>Thomson Reuters, Strategic Consulting Healthcare, Santa Barbara CA, USA; <sup>7</sup>San Camillo and Forlanini Hospitals, Department of Medical Oncology, Rome, Italy; <sup>8</sup>Memorial Sloan Kettering Cancer Center, Genitourinary Oncology Service, New York NY, USA

**Background:** Abiraterone acetate (AA) is a potent, selective androgen (CYP17) biosynthesis inhibitor, shown in the COU-AA-301 trial to improve overall survival (HR = 0.646) in mCRPC progressing after docetaxel (D). Here we retrospectively assess the impact of AA on patient-reported functional status in that study.

**Material and Methods:** COU-AA-301 is an international, randomised, double-blind study of AA (1 g QD) + prednisone (P; 5 mg BID) vs placebo + P in mCRPC post-D. Functional status was assessed at baseline, Cycles 4, 7, 10, and treatment discontinuation using the Functional Assessment of Cancer Therapy-Prostate (FACT-P) questionnaire. All analyses were conducted using responder definitions of clinically significant changes (improvement/decline compared to baseline) in eligible patients; definitions were based on literature [Cella D, et al. Value Health 2009;12:124–9] and distribution-based calculations.

FACT-P measure	AA N = 797	Placebo N = 398	p Value
<b>FACT-P total score</b>			
Improvement, n/eligible (%)	268/563 (48)	87/273 (32)	<0.0001 <sup>a</sup>
Time to decline [median], days	363	253	<0.0001 <sup>b</sup>
<b>Physical WB</b>			
Improvement, n/eligible (%)	285/616 (46)	83/295 (28)	<0.0001 <sup>a</sup>
Time to decline [median], days	339	240	<0.0001 <sup>b</sup>
<b>Social/Family WB</b>			
Improvement, n/eligible (%)	158/292 (54)	63/130 (49)	0.284 <sup>a</sup>
Time to decline [median], days	168	89	0.397 <sup>b</sup>
<b>Emotional WB</b>			
Improvement, n/eligible (%)	80/147 (54)	24/62 (39)	0.0380 <sup>a</sup>
Time to decline [median], days	424	226	<0.0001 <sup>b</sup>
<b>Functional WB</b>			
Improvement, n/eligible (%)	212/487 (44)	83/249 (33)	0.0076 <sup>a</sup>
Time to decline [median], days	337	169	<0.0001 <sup>b</sup>
<b>FACT-G Scale</b>			
Improvement, n/eligible (%)	235/568 (41)	78/283 (28)	<0.0001 <sup>a</sup>
Time to decline [median], days	424	274	<0.0001 <sup>b</sup>
<b>Prostate Cancer Subscale</b>			
Improvement, n/eligible (%)	321/554 (58)	101/255 (40)	<0.0001 <sup>a</sup>
Time to decline [median], days	262	142	<0.0001 <sup>b</sup>

<sup>a</sup> Chi squared test; <sup>b</sup> Log-rank test.

**Results:** 797 patients were randomized to AA and 398 to placebo, with respective median treatment durations of 8 and 4 months. Baseline FACT-P scores (for all 7 measures) were similar between groups. AA significantly improved functional status from baseline at each assessment and delayed time to decline in the majority of FACT-P measures, except the social/family well-being (WB) subscale where there was no difference (Table).

**Conclusions:** In post-D mCRPC, therapy with AA + P yields significantly greater improvements in patients' functional status and forestalls functional decline, compared to P alone. The extent of these benefits is likely to be considered important to patients.

## 7002

ORAL

### Time to Disease-related Pain After Sipuleucel-T in Asymptomatic Patients With Metastatic Castrate Resistant Prostate Cancer (mCRPC): Results From 3 Randomized Phase III Trials

E.J. Small<sup>1</sup>, C.S. Higano<sup>2</sup>, P.W. Kantoff<sup>3</sup>, J.B. Whitmore<sup>4</sup>, M.W. Frohlich<sup>5</sup>, D.P. Petrylak<sup>6</sup>. <sup>1</sup>UCSF Comprehensive Cancer Center, Urologic Oncology, San Francisco CA, USA; <sup>2</sup>University of Washington, Medical Oncology, Seattle, USA; <sup>3</sup>Dana-Farber Cancer Institute, Division of Solid Tumour Oncology, Boston, USA; <sup>4</sup>Dendreon Corporation, Biometrics, Seattle, USA; <sup>5</sup>Dendreon Corporation, Clinical Affairs, Seattle, USA; <sup>6</sup>Columbia University Medical Center, Division of Hematology Oncology, New York, USA

**Background:** Sipuleucel-T, an FDA-approved therapy for men with asymptomatic or minimally symptomatic mCRPC, has a demonstrated survival benefit. In addition to survival data, 3 completed Phase III, randomized, controlled trials sponsored by Dendreon Corp. also collected data on time to disease-related pain (TDRP).

**Materials and Methods:** Studies D9901 (NCT00005947) and D9902A (NCT01133704) enrolled only asymptomatic pts; TDRP was a secondary endpoint. Pain status was collected until disease-related pain or 4 weeks following disease progression, whichever occurred first. The IMPACT study (NCT00065442) originally enrolled only asymptomatic pts with a co-primary endpoint of TDRP; it was later amended to include minimally symptomatic pts and to remove the TDRP endpoint. Pts were treated with 3 infusions of sipuleucel-T or control at approximately 2-week intervals, and were then followed for safety and clinical endpoints. Pain status for pts enrolled prior to the amendment was collected until disease-related pain was observed. TDRP was assessed in all studies by pain logs and adjudicated by blinded independent reviewers. TDRP was analyzed using the Kaplan–Meier (KM) method and log rank test; hazard ratio (HR) was derived from an unadjusted Cox regression model. Analyses were based on all randomized pts on D9901 (n = 127) and D9902A (n = 98), and on IMPACT pts randomized prior to the amendment (n = 203).

**Results:** TDRP results were: D9901 HR = 0.68, D9902A HR = 1.39, and IMPACT HR = 0.80. Integrated results were HR = 0.84 ([95% CI: 0.64, 1.12]; P = 0.24). Separation in the KM curves was seen at approximately 6 months. Median TDRP was 5.6 vs 5.3 months. At 12 months 39.3% of sipuleucel-T vs 18.9% of control pts were estimated to be pain-free. Significant independent baseline predictors of earlier TDRP were higher PSA, higher alkaline phosphatase, lower age, bisphosphonate use, and prior radiation therapy. When adjusted for these clinical factors, the adjusted treatment HR = 0.80 ([95% CI: 0.60, 1.08]; P = 0.14).

**Conclusions:** The trend towards a delay in TDRP beginning 6 months after randomization is consistent with the potentially delayed anti-tumour effect of immunotherapy. These data provide support for a potential effect of sipuleucel-T on a clinically relevant endpoint proximal to the demonstrated benefit in overall survival. Lack of statistical significance could be due to limited sample size, high rate of censoring, or delayed treatment effect.

## 7003

ORAL

### Denosumab and Bone Metastasis-free Survival in Men With Castrate-resistant Prostate Cancer – Subgroup Analyses From an International, Double-blind, Randomized, Phase 3 Trial

S. Oudard<sup>1</sup>, M. Smith<sup>2</sup>, L. Karsh<sup>3</sup>, B. Egerdie<sup>4</sup>, P. Van Veldhuizen<sup>5</sup>, F. Gómez-Veiga<sup>6</sup>, D. Dearnaley<sup>7</sup>, Z. Ye<sup>8</sup>, R. Dansey<sup>9</sup>, C. Goessl<sup>9</sup>.

<sup>1</sup>Georges Pompidou Hospital, Medical Oncology, Paris, France; <sup>2</sup>Massachusetts General Hospital Cancer Center, Genitourinary Medical Oncology, Boston, USA; <sup>3</sup>The Urology Center of Colorado, Clinical Research Department, Denver, USA; <sup>4</sup>Urology Associates/Urologic Medical Research, Medical Research, Kitchener, Canada; <sup>5</sup>Kansas City VA Medical Center, Hematology and Medical Oncology, Kansas City, USA; <sup>6</sup>Hospital Universitario Juan Canalejo, Urology, A Coruña, Spain; <sup>7</sup>Royal Marsden Hospital, Institute of Cancer Research, Sutton, United Kingdom; <sup>8</sup>Amgen Inc., Global Biostatistical Sciences, Thousand Oaks, USA; <sup>9</sup>Amgen Inc., Hematology/Oncology, Thousand Oaks, USA

**Background:** Bone metastases are common in men with castrate-resistant prostate cancer (CRPC). Suppression of osteoclast activity by inhibiting RANKL, the key mediator of osteoclast survival, may inhibit release of growth factors from bone and delay onset of bone metastasis. We assessed the ability of denosumab (XGEVA™), a fully human monoclonal anti-RANKL antibody, to prolong bone metastasis-free survival in men with