

BCCA Protocol Summary for Palliative Therapy for Metastatic Castration Resistant Prostate Cancer Using Abiraterone and Prednisone After Failure of Docetaxel Therapy

Protocol Code:

UGUPABI

Tumour Group:

Genitourinary

Contact Physician:

Dr. Kim Chi

ELIGIBILITY:

- ECOG performance status 0-2
- Life expectancy greater than 3 months
- Patients with metastatic castration resistant prostate cancer who have received prior chemotherapy containing Docetaxel
- Bilirubin less than ULN, AST/ALT less than 2.5 x ULN, Alkaline Phosphatase less than 6 x ULN
- Creatinine less than 1.5 x ULN
- Serum potassium more than 3.5 mmol/L
- A BCCA "Compassionate Access Program" (CAP) request must be approved prior to treatment

EXCLUSIONS:

- Bilirubin greater than 1.5 x ULN, AST or ALT greater than 2.5 x ULN
- Uncontrolled hypertension (systolic blood pressure greater than 160 mmHg or diastolic greater than 95 mmHg)
- Active or symptomatic viral hepatitis or chronic liver disease
- History of adrenal dysfunction
- Clinically significant heart disease (LVEF less than 50% at baseline)

TESTS:

- Baseline: CBC and differential, platelets, bilirubin, liver enzymes, creatinine, glucose, electrolytes
- Before each treatment (every 4 weeks = 1 cycle): CBC & diff, platelets, liver enzymes, bilirubin, creatinine, electrolytes, blood pressure.
- For cycles 1-3: Monitor blood pressure, serum potassium, liver enzymes, bilirubin every 2 weeks
- PSA every 4 weeks
- MUGA scan or echocardiogram if clinically indicated or if history of cardiac problems

TREATMENT:

Androgen ablative therapy (eg, LHRH agonist, LHRH antagonist) should be maintained.

Drug	Dose	BCCA Administration Guideline
Abiraterone	1000 mg	PO daily on an empty stomach (one hour before or two hours after a meal)
Prednisone	10 mg daily (or 5 mg bid)	PO daily

DOSE MODIFICATIONS:

1. Hepatic dysfunction:

Bilirubin		AST and/or ALT	Dose
Less than or equal to ULN – 1.5 x ULN	and	Less than or equal to ULN to 2.5 x ULN	100%
1.5 – 3 x ULN	and	2.5 – 5 x ULN	100% Monitor liver tests at least weekly until grade 1 (Bilirubin less than 1.5 x ULN, AST/ALT less than 2.5 x ULN)
greater than 3 x ULN	or	greater than 5 x ULN	Hold abiraterone. Monitor liver tests at least weekly until grade 1 (Bilirubin less than 1.5 x ULN, AST/ALT less than 2.5 x ULN) Reduce dose of abiraterone by 250 mg and resume only after liver tests less than or equal to grade 1

ULN = upper limit of normal

2. Hypokalemia Management:

Hypokalemia has been observed and should be aggressively managed. Serum potassium should be monitored closely in patients who develop hypokalemia.

Serum K ⁺ (mmol/L)	Grade of Hypokalemia	Action	Further Action or Maintenance
Low K ⁺ or History of hypokalemia		Weekly (or more frequent) laboratory electrolyte evaluations.	Titrate dose to maintain potassium greater than 3.5 mmol/L and less than 5.0 mmol/L (greater than 4.0 mmol/L recommended)
less than 3.5 – 3.0	Grade 1	Initiate oral or IV potassium supplementation. Consider monitoring magnesium and replacement if needed.	Titrate dose to maintain potassium greater than 3.5 mmol/L and less than 5.0 mmol/L (greater than 4.0 mmol/L recommended)
less than 3.5 – 3.0 Symptomatic	Grade 2	Withhold abiraterone until potassium corrected. Initiate oral or IV potassium supplementation. Consider monitoring magnesium and replacement if needed.	Titrate dose to maintain potassium greater than 3.5 mmol/L and less than 5.0 mmol/L (greater than 4.0 mmol/L recommended)
less than 3.0 – 2.5	Grade 3	Withhold abiraterone until potassium corrected. Initiate oral or IV potassium and cardiac monitoring. Consider monitoring magnesium and replacement if needed.	
less than 2.5	Grade 4	Withhold abiraterone until potassium corrected. Initiate oral or IV potassium and cardiac monitoring. Consider monitoring magnesium and replacement if needed	

PRECAUTIONS:

1. **Fluid retention:** Fluid retention can occur due to mineralocorticoid excess caused by compensatory adrenocorticotrophic hormone (ACTH) drive. The administration of prednisone will help reduce incidence and severity of fluid retention.
2. **Hypertension:** Patients with hypertension should exercise caution while on abiraterone. Rigorous treatment of blood pressure is necessary, since abiraterone can cause a rapid onset of high blood pressure. Blood pressure will need to be monitored once every 2 weeks for the first three months of abiraterone therapy. Temporary suspension of abiraterone is recommended for patients with severe hypertension (greater than 200 mmHg systolic or greater than 110 mmHg diastolic). Treatment with abiraterone may be resumed once hypertension is controlled (see also <http://www.hypertension.ca>).
3. **Renal impairment:** No dosage adjustment is necessary for patients with renal impairment.
4. **Hepatic Dysfunction:** Abiraterone undergoes hepatic metabolism. Hepatic dysfunction (particularly elevated AST and ALT) may occur during the first 3 months after starting treatment so a more frequent monitoring of liver function tests is required (every 2 weeks in the first three months and monthly thereafter).

Call Dr. Kim Chi or tumour group delegate at (604) 877-6000 or 1-800-663-3333 with any problems or questions regarding this treatment program.

Date activated: 01 November 2011

Date revised: 01 Jan 2012 (continuation of androgen deprivation therapy clarified in Treatment section)

References:

1. de Bono JS, Logothetis CJ, Molina A et al. Abiraterone and increased survival in metastatic prostate cancer. *N Engl J Med.* 2011 May 26; 364 (21):1995-2005
2. Logothetis C, de Bono JS, Molina A et al. Effect of abiraterone acetate on pain control and skeletal-related events in patients with metastatic castration-resistant prostate cancer post docetaxel: Results from the COU-AA-301 phase III study. *J Clin Oncol* 29:2011 (suppl; abstr 4520).