

# Treatment algorithm in hormone-resistant prostate cancer: Practical guidelines

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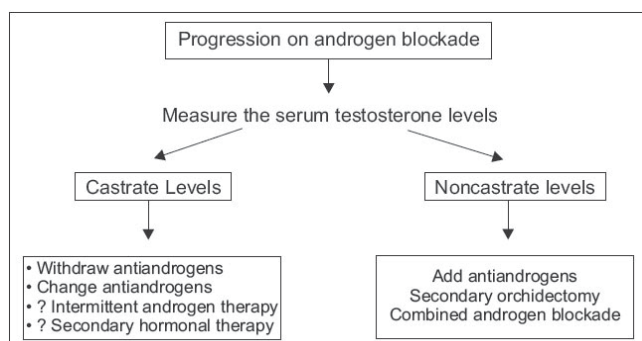
## ABSTRACT

Treatment of hormone-resistant prostate cancer can be a challenging situation. The first important step in treating this condition is to assess if one has achieved the castrate level or not. If the castrate levels are not achieved, attempt should be made to achieve so. If the castrate level is achieved, then androgen withdrawals may be of help. Supportive care, care of the clinical problems forms an integral part of the treatment. Cancer-specific chemotherapy is certainly an option in progressive disease.

**Key words:** Cancer-specific chemotherapy, castrate levels, hormone-resistant prostate cancer, psycho-oncology, secondary hormonal therapy, supportive care

The first important step in treating hormone-resistant prostate cancer (HRPC) is to find out if complete castrate levels are achieved or not. It has significant bearing on planning the further course of treatment. If the serum testosterone is at noncastrate level then further androgen suppression should be achieved.<sup>[1]</sup> If the castrate levels are achieved, then one could have options of either withdrawing antiandrogens or changing antiandrogens or trying intermittent androgen therapy or even trying secondary hormonal therapy. Continued androgen suppression with the same drugs or change of AA has been found to be effective in some patients.<sup>[2,3]</sup> Antiandrogen withdrawal has significant effect on the PSA decline – the first report came in 1993 as ‘Flutamide withdrawal syndrome’.<sup>[4]</sup> The overall response could be in the range of 15-33% lasting for more 3.5 + months to more than five months in various studies.<sup>[5-8]</sup>

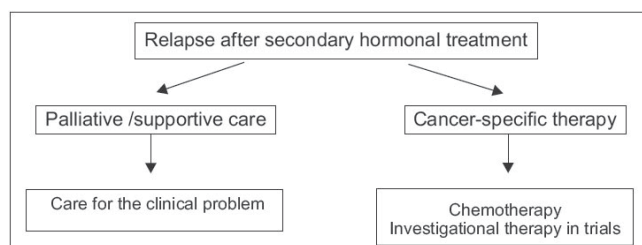
Secondary hormonal therapy also has a significant role to play in HRPC. Its beneficial effect has been found to be in the range of 30-60% with drugs like ketocanazole and aminoglutethimide.<sup>[9-11]</sup> Use of diethylstilbestrol has shown a response rate of 20-40% in various studies.<sup>[12]</sup>



Secondary hormonal therapy may include DES, ketocanazole, prednisolone, finasteride, dutasteride, estramustine, aminoglutethimide, etc.

### Noncastrate levels

Previous treatment	Plan of action
LH-RH analogues	Add antiandrogens <sup>[14-15]</sup>
LH-RH + antiandrogens	Change antiandrogens <sup>[16]</sup>
AA alone	Secondary orchidectomy Add LH-RH Secondary orchidectomy?
Bilateral orchidectomy	Change AA Add antiandrogens



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Clinical problems and the care		
Clinical problem	Options	Comment
BOO	Indwelling catheter/SPC Channel TURP Prostatic stents	High rate of incontinence after TURP Blockage of stents
Hematuria	Bladder washout Haemostatic agents Haemostatic RT	Haemostatic RT quiet useful
Urinary incontinence Ureteric obstruction	Indwelling catheter Antegrade stenting PCN Steroids Honvon ? leave alone	Can be nuisance despite catheterization Most difficult problem is decision-making 'to treat or not to treat'. Certainly not for dialysis Individual situations may make decisions easier
Bony pains	NSAID Opiates Local RT Biphosphonates Strontium <sup>[18]</sup> P-32 Steroids	Use 'WHO' ladder for pain relief <sup>[17]</sup> local RT effective Side-effect profile of NSAIDs, opiates, strontium can be bothersome
Pathological fractures	Stabilization Postfixation-RT	Fixation improves QOL and prevents inherent complications of fractures <sup>[19]</sup>
Spinal cord compression	Steroids Local RT Decompression	Timely treatment essential for impending neurodeficit
Anemia	RBC component therapy Blood transfusion Erythropoietin Bone marrow stimulants Nutritional support	Overenthusiastic treatment to be avoided <sup>[20]</sup>
Coagulopathy	Platelets, FFP? Heparin	Apart from the disease, look for any drugs responsible for coagulation disorder
Lymphoedema	Steroids Stockings	Rarely useful
Rectal obstruction/ rectovesical fistula	? Colostomy ? ? ? Urinary diversion	Rarely justified
Psychological issues	Antidepressants Mood elevators Counseling <sup>[21,22]</sup>	Psycho-oncology is an emerging branch. Such professional help can be rewarding

AA - Antiandrogens, BOO - Bladder outflow obstruction, SPC - Suprapubic catheter, RT - Radiotherapy, FFP - Fresh frozen plasma

Secondary orchidectomy has a definite role to play if the castrate levels are not achieved. The response rate would be in the range of 5-70% depending on the prior hormone manipulation used and partly due to inconsistent use of the drugs.<sup>[13]</sup>

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