At what PSA level should cycle two of hormone blockade (HB) commence in men who refuse local treatment for prostate cancer (CaP) and are treated with intermittent androgen blockade (IAB)?

**Abstract:**
No consensus exists for treating clinically localized CaP. An NCI "high priority" study randomizes men with clinically localized CaP to radical prostatectomy (RP) or no treatment. No prospective randomized trial has found any form of radical local treatment to be both necessary and effective. Patients with CaP request treatment with IAB although studies have not determined if this approach is beneficial. Urologists and oncologists are using IAB although guidelines for timing of retreatment do not exist. Different and arbitrary PSA levels are used to initiate cycle 2 of IAB by different physicians. Some recommend PSA 5; others PSA 50% of baseline; others use PSA 2.5 for patients on finasteride maintenance. We have treated 133 men with clinically localized CaP with IAB. All men had refused local therapy. Men were treated with triple hormone blockade for 13 months followed by finasteride maintenance therapy (Leibowitz Proceeding ASCO 2000). Rather than retreat at an arbitrary PSA, we elected to observe the natural history of PSA after cycle 1 of HB. We have 5 year follow-up on the first 80 of these 133 patients. They have been off HB more than 75% of the time. For the entire series, the mean follow-up is 4 years (range 2-11 years). Off HB two different and completely unexpected patterns of PSA have been identified. In one pattern, PSA rises in 1 or 2 steps and then plateaus. A second "saw tooth" PSA pattern without trending upwards is also identified. Six out of 133 patients did not demonstrate either pattern and were retreated with cycle 2 of IAB. We suggest patience before re-treating with HB. Based on our experience we do not recommend using an arbitrary PSA value to re-start HB.