

**A Randomized Phase II Dose Finding Study of ArginMax for
Its Effect on Erectile Function and Quality of Life in
Survivors of Prostate Cancer Previously Treated with
Radiotherapy**

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- **The majority of men treated for pelvic malignancies are at risk for decreased sexual functioning.**
- **For example: > 60% of prostate cancer survivors will have some degree of sexual dysfunction¹**
- **The use of Phosphodiesterase inhibitors can improve potency in more than half of these men.²**

¹Potosky JNCI 2004

²Raina Urology 2003

- **Phase 3 – tadalafil (Cialis) vs placebo (x-over)**
 - **67% vs 20% improvement in ED with tadalafil**
 - **48% vs 9% reported successful intercourse**

- **Phase 3 – sildenafil (Viagra) vs placebo (x-over)**
 - **55% vs 18% reported successful intercourse with sildenafil**

- **ArginMax - mixture of L-arginine, ginseng, ginkgo, and damiana, multivitamins, and minerals**
 - **Female: Arginmax vs Placebo**
 - After 4 weeks, 74% vs 37% of the ArginMax group improved satisfaction with their overall sex life, ($p < 0.01$).
 - **Male: 25 men - mild to moderate ED treated with ArginMax**
 - After 4 weeks, 89% improved ability to maintain erection
 - 75% had improvement in the overall satisfaction with their sex life.
 - No significant side effects were noted.
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**Registration &
Baseline Testing**

n=140 →

| Randomization | |
|--------------------------|---|
| <u>Dose Level</u> | <u>ArginMax Dose</u> |
| 1 | Placebo (6 cap BID) |
| 2 | 3 cap ArginMax BID & 3 cap Placebo BID |
| 3 | 6 cap ArginMax BID |

For patients currently taking PDE-5 inhibitors: the PDE-5 medication will be prescribed at the same dose the patient was on prior to study enrollment as prescribed by their doctor.

STRATIFICATION FACTORS:

Age < vs ≥ 65

PDE5 inhibitor usage yes vs no

- **Inclusion Criteria**

- Prostate cancer survivor previously treated with radiotherapy
- Successful sexual activity prior to the commencement of radiotherapy.
- Agree to make at least one sexual intercourse attempt every week during the study.

- **Exclusion Criteria**

- Contraindications for the use of trial medications.
Warfarin
 - Prior prostate or lower genitourinary surgery
 - Current androgen ablative therapy
 - Concurrent erectile dysfunction therapies other than sildenafil (i.e. vacuum pump, cavernosal injections, other drug therapies).
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Primary protocol objective.

Define the “best dose” of ArginMax to be used in a subsequent Phase III trial.

The “best dose” will be defined as the dose which shows the greatest improvement in the erectile function domain of the IIEF after 8 weeks of therapy

Secondary protocol objectives.

- 1. Toxicity Evaluation**
 - 2. Estimates of trial accrual, retention, adherence, and variability**
 - 3. Improvements in quality of life and sexual function as defined:**
 - **Quality of Life of Prostate Cancer survivors using the EPIC-26.**
 - **IIEF: orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction.**
 - **Changes in the SEP**
 - **Changes in the percentage of "yes" (positive) responses to either of the two global efficacy questions (GEQs)**
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- **Baseline**
 - **IIEF and EPIC 26 (prostate/sexual function QOL instruments)**

 - **Week 4 and Week 8**
 - **Sexual Encounter Profile Diary**
 - **GEQ - "Has the treatment you have been taking improved your erections?" and "Has the treatment you have been taking led to successful intercourse?"**
 - **Pill Count**
 - **Toxicity**
 - **IIEF**
 - **EPIC 26 at Week 8.**

 - *To encourage compliance with study medications, research staff will call each enrolled patient once per week for the first two weeks and then once every two weeks thereafter.*
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- **Protocol NCI approved**
 - **Opened Fall 2010**
 - **Sample size 140 (about 47 per arm)**
 - **“Best dose” will be used to plan subsequent Phase III placebo controlled double blind randomized trial**
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| | |
|--|------------|
| Estimated number of patients required | 140 |
| | |
| Total number of patients accrued as of 10/25/13 | 138 |
| | |
| Accrual since 10/2011 | 24 |
| | |
| Expected monthly accrual | 10 |
| Average monthly accrual last six months | 2 |

- **Approximately 90% of patients are completing study that enroll**
 - **No significant toxicity reported.**
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