Four new drugs will change prostate cancer care, Colorado expert says

February 16, 2012 By Garth Sundem

After a decade and a half of near stagnation, four new drugs could help make advanced prostate cancer a chronic illness instead of a terminal disease, a leading Colorado prostate cancer expert says.

"It's not just chemotherapy. The drugs have different and innovative methods of action. One is a bone protective agent; another's a more effective hormone agent; another is radiotherapy; and the final one is the first drug tested for cancer immunotherapy," says *E. David Crawford, MD*, investigator at the University of Colorado Cancer Center and head of urologic oncology at University of Colorado Hospital.

"Even without the addition of any more drugs, we may now have the tools that in combination will allow us to extend the survival prognosis of a prostate cancer patient long enough to make prostate cancer a disease a patient is more likely to die with than from," Crawford says.

Along with *Thomas Flaig, MD*, Crawford describes these advances in prostate cancer treatment in a <u>recent review</u> for the journal *Oncology*.

First is the drug Denosumab, which Crawford says, "has three uses in protecting the bones of prostate cancer

patients." It can prevent bone fractures in patients with existing bone metastasis; it can prevent osteoporosis in patients whose calcium is depleted as a side-effect of hormone therapy; and (pending FDA approval) it has been shown to hold off the occurrence of bone metastasis for an average of four months in patients whose spiking PSA scores predict the likely onset of bone involvement.

Second is the drug Alpharadin, which is one of a novel and exciting class of "radiopharmaceuticals" – drugs that emit radiation and allow doctors to precisely deliver radiation to tumor sites. In the case of Alpharadin, it emits *alpha* rather than *beta* particles, which allows more precise tumor targeting of bone metastasis sites with less collateral damage to surrounding bone marrow.

Third, the drug Prostvac is the first "immunotherapy" drug used for the treatment of cancer. The drug acts like a vaccine, priming the immune system to recognize and thus fight against prostate cancer cells. In a phase II clinical trial of 125 patients, the drug extended the median survival time from 16.6 to 25.1 months.



E. David Crawford, MD, investigator at the University of Colorado Cancer Center



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Three Key Points

- Four new drugs could transform prostate cancer from terminal to chronic disease
- Not just chemo new, targeted drugs act in novel and interesting ways
- 3. These drugs mark first major advances in prostate cancer care in nearly 15 years

completely suppresses the body's ability to make testosterone, which many prostate cancers need to grow (as opposed to previous drugs, which based to gut compete testosterone with

Finally, the drug Abiraterone Acetate

hoped to out-compete testosterone with estrogen, or imperfectly controlled testosterone production).

Crawford notes that these drugs are being approved for use only after more established therapies have failed and hopes that in coming years science may accelerate the use of these drugs to first-line therapies.

"Before we just had hormone therapy, then we got chemo, and each therapy we added packed on another couple months of survival. Now with these news drugs we're tacking on even more time. The light at the end of the tunnel is the hope that we'll turn this into a chronic disease and now we might have the tools that in some combination will do it," Crawford says.

* To learn more about these and other cutting-edge strategies to combat advanced prostate cancer, refer for Crawford and Flaig's recent review: Optimizing Outcomes of Advanced Prostate Cancer: Drug Sequencing and Novel Therapeutic Approaches.