The story

“The Magic Bullet for Prostate Cancer”
http://www.menshealth.com/health/prostate-cancer-proton-therapy
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The pitch

The Beam Boom

When Gary Bayless of Arnett, Oklahoma, got news of his prostate cancer, he did what any man would do. He Googled. He didn’t want to die, sure, but neither did he like what his doctor was telling him about the odds of a post-cancer life of diapers and Viagra. Enough clicking brought him around to a new way of annihilating cancer using proton beams. Because proton particles can be more easily sculpted to match the jagged edges of a tumor, protons offer the hope of better cancer treatment with less collateral damage to neighboring tissues. Even better, Bayless could get his protons in Oklahoma City, just three hours away.

Good for Bayless. Maybe not so good for the rest of us. Oklahoma’s ProCure Proton Therapy Center opened last year, at the time becoming the nation’s 9th center for proton beam treatment. Today, about a dozen such facilities are humming along in the United States, with several more planned -- including one just across town at the OU Cancer Institute. Each device weighs about as much as a fully loaded Boeing 747, takes up an entire city block, and costs anywhere from $150 million to more than $200 million to install. (Largely for the particle accelerator needed to generate the protons.)

There’s just one problem. No study so far has shown that proton beam therapy is superior to conventional treatment, for either survival or treatment-related symptoms. Last fall, researchers writing in the Annals of Internal Medicine reviewed 243 known studies of proton beam treatment. They could not conclude that it offered any advantage to less elaborate forms of radiation. Few randomized trials have been done; those that have found no better survival with proton beams over conventional radiation therapy. The latest one, a study comparing conventional radiation with proton beam, was published just this March in the Journal of the American Medical Association.

Not that this has stopped the lust for protons, which has less to do with good medicine and more to do with fancy PR. Dr. Anthony Zeitman, president of the American Society for Radiation Oncology, recently told Oncology Times that proton beam technology
centers “are prestige projects for marketing purposes without proof of real benefit...this is really a very deeply disturbing aspect of contemporary medicine.” That is, proton beams are the touchstone of ongoing technology arms race that’s helping deliver the helping deliver the health care system into bankruptcy.

For all that the recent health care reform stands to change, the legislation did not address the biggest threat to the nation’s health care system. Things are getting too expensive, too fast. About 15 percent of our GDP goes for health care – more than any other nation. On this trajectory, health care costs are on course to bleed government health programs dry, and take much of our economy with it. Scholars estimate that as much as 50 percent of the rise in health care costs is due to new technology.

I’m proposing a story that examines how the one-upmanship in machinery is straining the system, using proton beams as a case in point. I should add here that you and I are ultimately picking up the bill for these proton centers. The $50,000-a-pop treatments are covered under Medicare and most health insurance plans -- money drawn from our taxes and the premiums we pay every month. To make the story real, and textural, I will tell it through a narrative framework of Oklahoma City and its proton center. Or soon, centers. I will show how, in many ways, proton beam technology represents both much that’s good, and much that’s very wrong with the current system. While it is certainly an advance in cancer treatment, how many proton centers does the country need? (How many does one city need?) One faculty member at Dartmouth Medical School recently told me that his institution decided not to pursue construction of a proton center, believing that doing so would medically irresponsible.

Even the biggest advocates of proton beam technology worry that excess enthusiasm may create backlash and heavy economic consequences. “Hopefully, it won’t bankrupt the system,” says Stephen Hahn, a radiation oncologist at the University of Pennsylvania who head that institution’s proton center.

Proton therapy does appear to offer an advantage for certain types of cancer, especially pediatric cancers, and tumors near sensitive tissues like the eye and lungs. But kids are not the primary patients being served. Of Oklahoma’s 150 patients so far, 109 were men with prostate cancer, men like Gary Bayless. Why? Because that’s where the paying customers are. “It’s pretty clear that the economics of having a proton center depend heavily on using it to treat prostate cancer,” Dr. Sean Tunis, director of the Center for Medical Technology Policy, told me. Some detractors even privately snark about proton centers as “prostate cancer factories.”

A look at Oklahoma’s proton center provides a way of examining (and understanding) one of the most looming problems in health care. Patients want – we all want—the best technology available. But how much should we pay for it?