

Evidence in Action

Evidence AND Clinician Experience Inform Chiropractic Practice; The Prostate

By Lisa Zaynab Killinger, DC

AN OLDER PATIENT SEEKS CARE FOR BACK PAIN that doesn't seem back related. This leaves you wondering, "What does the evidence say about recommended screenings?"

Your Patient

Harold is a 78-year-old African American who comes to your chiropractic practice for low-back pain. His problem list is lengthy. You are left wondering, "Where do I start, and is his back pain really just back pain?" Harold had a heart attack 15 years earlier. He is taking several medications including a beta blocker, an antihypertensive, a daily aspirin and a statin. He takes Aleve™ (Naproxen) twice daily for his back pain since he does not like to take pain medication several times a day.

His other complaints include fatigue, poor sleep due to low-back pain that wakes him up at night, pain in his hands and most other joints, and getting up to urinate several times a night. He is often constipated and regularly takes a laxative. He struggles with asthma and states that his doctor says he is borderline diabetic. Harold is overweight (BMI of 27, according to his doctor) and eats what he calls "a typical meat-and-potatoes diet." He golfs about once per week in the summer and bowls on a league in the winter. Other than that, he is not very active.

Your Exam

Since Harold only sees his medical doctor every other year, you perform a complete physical and chiropractic/neuromusculoskeletal examination. You surmise that while Harold does have low-back pain, the pattern of pain does not seem to indicate a musculoskeletal cause.

Your Thoughts

Older patients are often complex. Harold has many health problems but your immediate concern is the back pain. It is worse at night and not made worse with movement through his ranges of motion. These are typical signs of prostate problems. You are aware that prostate conditions are common in older males. You find a recent article noting that

prostate cancer is the most common non-skin-related cancer in adult males, affecting 15.9 percent of U.S. men.¹ You look in your *Differential Diagnosis* textbook.² It indicates that, given this patient's presentation and risk factors, you should definitely consider prostate cancer. You wonder if you should recommend a screening to rule out prostate cancer and which screening tool is most appropriate. You schedule Harold for the next day so you have time to prepare your report of findings, do a little research and develop your care plan and recommended screenings, if appropriate.

Your Search

You search for a good source on evidence-based screening tools for prostate problems. Several searches mention or link to the U.S. Preventive Services Task Force (USPSTF) recommendations.³ You visit that site and note that routine screening for prostate cancer has an evidence rating of "D." ("A" is the best, indicating the highest level of scientific evidence). The "D" rating does not seem very promising. So you see a tab for a "final evidence summary" on the site and decide to look there for further information.

Your Evidence Summary Article

You find the following "evidence summary" article: Chou R, Crosswell JM, Dana T. Screening for Prostate Cancer: A Review of the Evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2011;155:762-771.⁴

The Conclusion

Prostate-specific antigen-based screening leads to small or no reduction in prostate cancer-specific mortality and is associated with harms related to subsequent evaluation and treatments, some of which may be unnecessary. The article reports mixed results with the PSA blood test screening. The authors seem to be saying that the screenings may cause more harm than good. You return to the USPSTF for more information. This resource has compiled the evidence into the following statements:

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Expected Harms of Screening

Most prostate cancers found by PSA screenings are slow growing, not life threatening, and will not cause a man any harm during his lifetime. However, there is currently no way to determine which cancers are likely to threaten a man's health and which will not. As a result, almost all men with PSA-detected prostate cancer opt to receive treatment.

In addition to the frequent complications of biopsy that lead to a cancer diagnosis, there can be serious harms from treatment of screen-detected prostate cancer. For every 1,000 men who are screened with the PSA test:

- ▶ 30 to 40 men will develop erectile dysfunction or urinary incontinence due to treatment
- ▶ 2 men will experience a serious cardiovascular event, such as a heart attack, due to treatment
- ▶ 1 man will develop a serious blood clot in his leg or lungs due to treatment

For every 3,000 men who are screened with the PSA test:

- ▶ 1 man will die due to complications from surgical treatment

Your Dilemma

Now you see that screening is not warranted in most men, but you still have a patient who displays many of the hallmark signs of prostate cancer. Wouldn't most patients want to know if they had cancer? Also, you learn from a review on the American Cancer Society website that metastases to the spine are often from the prostate.⁵ You have concerns about adjusting this patient without some sort of screening to rule out the possibility of pathology in the spine.

Comment

You report to the patient that your exam findings and history have caused you some concern that his spinal pain may originate somewhere beyond the spine. You order lumbo-pelvic A-P and lateral X-rays and send them to a radiologist. The radiology report does indicate a lesion in the sacrum and also in L5 that may be consistent with metastasis. The X-ray also shows radiodense areas in the region of the prostate that may be cancer.

In spite of the "D" rating for prostate cancer screenings with the PSA blood test, when clinician experience, exam findings and radiological exam findings all point to the need for further evaluation, there is a time to use a PSA blood test. This patient will most likely be screened, using

the PSA blood test and acid phosphatase blood tests, as well as additional ultrasound and radiographic examinations.

If it is determined that Harold DOES have prostate cancer, he will then have to make a decision to do "watchful waiting" (no treatment, but regular tests to monitor the cancer's growth) or to treat the cancer with radiation, chemotherapy, or other treatment options.

This case reminds us that evidence informs practice but does not always point out the best course of management for each unique case. The best clinicians look at the entire clinical picture, including the information gained in the examination and history, to determine the most prudent course of management. In this case, screening helped prevent a potentially serious adverse event from adjusting into a spine that contained clinically significant pathology.

Prostate cancer is a very common but slow-growing cancer that may present as low-back pain. It is important for chiropractors to be mindful of prostate cancer risk since the rates of spinal metastases are high. Using the scientific literature to inform our chiropractic practice will help us to provide information and screenings for our patients consistent with the evidence base. ■

References

1. Howlader N, Noone AM, Krapcho M, Neyman N, Aminou R, Waldron W, et al., eds. *SEER Cancer Statistics Review, 1975-2008*. Bethesda, MD: National Cancer Institute; 2011. Accessed at http://seer.cancer.gov/csr/1975_2008/index.html on 6 Oct. 2011.
2. Souza TA. *Differential Diagnosis and Management for the Chiropractor: Protocols and Algorithms*. 5th Ed. Jones & Bartlett, Burlington, MA. 2014.
3. www.uspreventiveservicestaskforce.org/Page/Topic/recommendation-summary/prostate-cancer-screening
4. Chou R, Crosswell JM, Dana T. Screening for prostate cancer: a review of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med*. 2011;155:762-771.
5. www.cancer.org/acs/groups/cid/documents/webcontent/003087-pdf.

