

## Prostate Cancer Screening

### Analysis

The U.S. Preventive Services Task Force has determined that there is insufficient evidence to recommend for or against prostate cancer screening in men between the ages of 50 and 75. However, they specifically recommend against screening in men over the age of 75.<sup>1</sup>

Although the American Cancer Society and American Urologic Association both recommend educating patients about the availability of PSA testing, they likewise only recommend screening in patients with a life expectancy of at least 10 years (which by actuarial tables excludes most patients over the age of 75).<sup>2,3</sup>

As follow-up to PSA testing, the ACS and AUA recommend using the free PSA test only in cases where total PSA is between 4.0 ng/mL (or 2.5 ng/mL, depending on physician and patient preference) and 10.0 ng/mL. Note also that there are no interpretive guidelines available for free PSA when the total PSA is outside the range of 2.5 to 10.<sup>4</sup>

During the analysis period, Springfield Regional Hospital ordered 1,512 free PSA tests:

- 713 of these specimens had a total PSA either less than 2.5 or greater than 10
- 458 of the patients were over 75 years old

Overall, 963 orders (63.8%) appeared to not follow the ACS and AUA guidelines.

For further information on PSA testing, please see the [Prostate Cancer - PSA](#) topic at [www.arupconsult.com](http://www.arupconsult.com).

### Patient Care Impact

Ordering free PSA on patients with a total PSA of less than 2.5 may lead to biopsies in patients who do not need them. Ordering free PSA on patients with a total PSA of greater than 10 may lead to failure to biopsy in patients who do need them. Prostate cancer screening in patients who have less than 10 years of life expectancy may lead to treatment, including prostatectomy and radiation therapy, of cancers in patients who may receive more harm than benefit from the treatment.

---

<sup>1</sup>Screening for Prostate Cancer, U.S. Preventive Services Task Force, August, 2008.

<sup>2</sup> Recommendations from the American Cancer Society Workshop on Early Prostate Cancer Detection, May 4-6, 2000 and ACS guideline on testing for early prostate cancer detection: update 2001. *CA Cancer J Clin* 2001 Jan-Feb;51(1):39-44. [http://www.guideline.gov/summary/summary.aspx?doc\\_id=2747](http://www.guideline.gov/summary/summary.aspx?doc_id=2747).

<sup>3</sup> American Urological Association, Prostate-Specific Antigen (PSA) Best Practice Policy. *Oncology* 2000 Feb 14(2). <http://www.cancernetwork.com/journals/oncology/o0002e.htm#Abstract>.

<sup>4</sup> Jackson BR, Roberts WL. Brief report: Free prostate-specific antigen test utilization. Consistency with guidelines. *J Gen Intern Med* 2005 Sep 10(9):859-61.

Underuse of free PSA in settings where it is indicated may also be harmful to patients, because it may be associated with overaggressive use of biopsy.

### Cost Impact

Free PSA testing is not indicated in patients with total PSA values outside the recommended limits, and prostate cancer screening is not indicated in patients lacking at least 10 years of life expectancy. By using the free PSA test appropriately, Springfield Medical would have saved:

- **\$39,174.84 in direct testing costs**
- **An undetermined amount of downstream expenses (excess follow-up testing, office visits, unnecessary or inappropriate therapy, etc.)**

### Recommendations

We recommend that Springfield Medical:

- Identify clinicians who are ordering free PSA tests in a manner inconsistent with these recommendations and provide them with feedback, including the ACS and AUA guidelines for prostate cancer diagnosis and management.
- Identify clinicians who screen significant numbers of patients for prostate cancer (volume of total PSA orders is a surrogate marker for this) but who do not order any free PSA tests. Provide them with education regarding the ability of free PSA to avoid biopsy in some patients.

**Data**

During the review period, Springfield Medical ordered the following tests related to this topic:

Test #	Test Name	12 Month			
		Volume	YTD Avg.	Current	Net
0080206	Prostate Specific Antigen, Free Percentage (Includes Free PSA & Total PSA)	1,512	\$ 38.66	\$ 38.68	\$ 58,453.92
0070121	Prostate Specific Antigen, Total	61	\$ 20.04	\$ 20.34	\$ 1,222.46
0080264	Prostate Specific Antigen, Total with Reflex to Free PSA (Includes Free Percentage)	11	\$ 19.51	\$ 20.34	\$ 214.60
0050338	Reflexed to Free PSA (Includes Free Percentage)	5	\$ 20.34	\$ -	\$ 101.70
0070120	Prostatic Acid Phosphatase	119	\$ 10.97	\$ 10.68	\$ 1,304.92



