Prostate Cancer Screening in Men with Down Syndrome
Brian Chicoine, MD
Medical Director

Should men with Down syndrome (DS) undergo prostate specific antigen (PSA) blood testing for prostate cancer screening?

The United States Preventive Services Task Force (USPSTF) recommends the following about prostate cancer screening with PSA for men (this is the recommendation for all men not just for men with DS):

“For men aged 55 to 69 years, the decision to undergo periodic prostate-specific antigen (PSA)-based screening for prostate cancer should be an individual one. Before deciding whether to be screened, men should have an opportunity to discuss the potential benefits and harms of screening with their clinician and to incorporate their values and preferences in the decision. Screening offers a small potential benefit of reducing the chance of death from prostate cancer in some men. However, many men will experience potential harms of screening, including false-positive results that require additional testing and possible prostate biopsy; overdiagnosis and overtreatment; and treatment complications, such as incontinence and erectile dysfunction. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the balance of benefits and harms on the basis of family history, race/ethnicity, comorbid medical conditions, patient values about the benefits and harms of screening and treatment-specific outcomes, and other health needs. Clinicians should not screen men who do not express a preference for screening. The USPSTF recommends against PSA-based screening for prostate cancer in men 70 years and older.”

The American Academy of Family Practice (AAFP) recently shared this:

“Margot Savoy, M.D., M.P.H., chair of the Commission on Health of the Public and Science, told AAFP News that the AAFP and USPSTF recommendations on the topic share similarities...

‘The key difference is that while the UPSTF recommendation for men ages 55-69 is ambiguous about whether it actually recommends screening, we want family physicians to clearly understand that based on the currently available evidence, we do not recommend routine PSA-based prostate cancer screening,’ Savoy said...
Additionally, the Academy said that although the mortality benefit of prostate cancer screening results from early treatment, it is the treatment of prostate cancer that causes the most serious harms.

‘These potential harms are particularly concerning given the high rate of overdiagnosis associated with prostate cancer screening,’ the recommendation noted. ‘Overdiagnosis involves the diagnosis of asymptomatic cancer that never would have resulted in symptoms or death.’

It's estimated that overdiagnosis from prostate cancer screening could mean that up to half of men exposed to the harms of treatment would never have been affected by their cancer.”

Prostate cancer is often slow-growing. Many men have prostate cancer at the time they die from something else (many men have prostate cancer when they die that they have had for years and the prostate cancer does not contribute to their death).

The figure on the following page shows some statistics with regards to screening men who do not have DS.

For individuals with DS, there are a few additional things to consider.

- Life expectancy is about 60 years – since prostate cancer is often slow-growing, even if prostate cancer was found at 55, the likelihood of treatment resulting in improved health and increased life span is very low.
- Prostate cancer is less common in people with DS. Screening for an uncommon condition often results in more “false-positive” tests – the test (in this case the PSA blood test) is positive but the person does not have the disease. This results in doing lots of testing (ultrasounds, biopsies, etc.) on people that are found not to have the disease.
- For men with DS, often times testing requires anesthesia to successfully complete the follow-up testing (e.g. prostate biopsy). This increases the risk of the testing, particularly for people with DS, who are more susceptible to anesthesia complications.
Is Prostate Cancer Screening Right for You?
Understanding the Potential Benefits vs. Harms for Men 55–69

The prostate-specific antigen (PSA) screening test is the most common method clinicians use to screen for prostate cancer. The PSA test measures the amount of PSA, a type of protein, in the blood. When a man has an elevated PSA level, it may be caused by prostate cancer, but it could also be caused by other conditions too. Studies show that PSA-based screening in men 55–69 comes with potential benefits and harms over a period of 10–15 years.

The U.S. Preventive Services Task Force recommends that for men 55–69, the decision to receive PSA-based screening should be an individual one. Before deciding whether to be screened, men should have an opportunity to discuss the potential benefits and harms of screening and to incorporate their values into the decision. (C grade)

Of 1,000 Men Offered PSA-Based Screening

- 240 Get a Positive PSA Result which may indicate prostate cancer
- Of those, 100 Get a Positive Biopsy showing definite cancer
- 20%–50% of these men will learn they have a false-positive result after getting a biopsy
- Potential side effects of biopsy:
  - Pain
  - Bleeding
  - Infection

- 80% Choose Surgery or Radiation Treatment
- Erectile dysfunction
- Urinary incontinence
- 50 Number of men who will experience negative outcomes**
- 15 Men
- 3 Avoid Cancer Spreading to Other Organs* or after a period of active surveillance*
- 1 Avoids Death From Prostate Cancer***
- 5 Dies From Prostate Cancer Even After Surgery or Treatment

Note: This summary document is based on a comprehensive review of PSA-based screening and treatment studies, and is meant for informational purposes. Men with questions should talk to a trusted health-care professional to learn more about the potential benefits and harms of PSA-based screening. Estimates are based on benefits observed in the ERSPC trial for men aged 55 to 69 years and harms derived from pooled results from four treatment trials (Pivot, PROPS, SP RCS, PRCF).

* This includes 65 men who choose surgery or radiation at diagnosis, as well as 15 men who choose to monitor their cancer initially and later have surgery or radiation when it progresses.

** Estimates based on benefits observed in the ERSPC trial for men aged 55 to 69 years and on treatment harms derived from pooled absolute rates in the treatment group in the three treatment trials (Pivot, PROPS, SP RCS, PRCF). Expressed in harms may result directly from treatment, cancer, age, or other causes.

*** 1.3 deaths are avoided per 1,000 men offered PSA-based screening.


U.S. Preventive Services Task Force

Advocate Medical Group
Adult Down Syndrome Center
1610 Luther Lane, Park Ridge, IL 60068
847-318-2368
For all of the above reasons, we generally recommend against screening for our patients. What if they have a family history of prostate cancer and/or have African American ancestry? While these 2 factors put men in a higher risk category, our review of all the information still leads us to the conclusion that prostate cancer screening has more risk than benefit in men with Down syndrome; it is likely to lead to more harm (even death) than good.

We look forward to discussing this further as the healthcare guidelines for adults with Down syndrome are updated (see the link to our Facebook post on the Health Care Guidelines project in the endnote below).\(^4\) In the meantime, we recommend you discuss this with your health care provider to review your particular situation and to make your own decision about prostate cancer screening.

One more thought. At times we have been asked if we are promoting rationing care for adults with Down syndrome by discussing not doing some screening tests. We are not promoting rationing care, we are promoting rationale care. As we continue to review available studies, some tests in the general guidelines will not make sense for people with Down syndrome (e.g. perhaps mammograms) and some tests not recommended in the general guidelines will make sense for people with Down syndrome (e.g. perhaps screening for celiac disease). There is more research to be done to sort out the correct answers/recommendations.

---


