



Prostate Cancer screening Guideline Statements

American Urology Association

Guideline Statement 1:

The Panel recommends against PSA screening in men under age 40 years. (*Recommendation*; Evidence Strength Grade C)

- In this age group there is a low prevalence of clinically detectable prostate cancer, no evidence demonstrating benefit of screening and likely the same harms of screening as in other age groups.

Guideline Statement 2:

The Panel does not recommend routine screening in men between ages 40 to 54 years at average risk. (*Recommendation*; Evidence Strength Grade C)

- For men younger than age 55 years at higher risk (e.g. positive family history or African American race), decisions regarding prostate cancer screening should be individualized.

Guideline Statement 3:

For men ages 55 to 69 years the Panel recognizes that the decision to undergo PSA screening involves weighing the benefits of preventing prostate cancer mortality in 1 man for every 1,000 men screened over a decade against the known potential harms associated with screening and treatment. For this reason, the Panel strongly recommends shared decision-making for men age 55 to 69 years that are considering PSA screening, and proceeding based on a man's values and preferences. (*Standard*; Evidence Strength Grade B)

- The greatest benefit of screening appears to be in men ages 55 to 69 years.

Guideline Statement 4:

To reduce the harms of screening, a routine screening interval of two years or more may be preferred over annual screening in those men who have participated in shared decision-making and decided on screening. As compared to annual screening, it is expected that screening intervals of two years preserve the majority of the benefits and reduce overdiagnosis and false positives. (*Option*; Evidence Strength Grade C)

- Additionally, intervals for rescreening can be individualized by a baseline PSA level.



Guideline Statement 5:

The Panel does not recommend routine PSA screening in men age 70+ years or any man with less than a 10 to 15 year life expectancy. (*Recommendation*; Evidence Strength Grade C)

- Some men age 70+ years who are in excellent health may benefit from prostate cancer screening.

If prostate cancer screening test results aren't normal

If the results of early detection tests – the prostate-specific antigen (PSA) blood test and/or digital rectal exam (DRE) – suggest that you might have prostate cancer, your doctor will do other tests, such as a transrectal ultrasound and a prostate biopsy to find out.

Transrectal ultrasound (TRUS)

For this test, a small probe about the width of a finger is lubricated and placed in your rectum. The probe gives off sound waves that enter the prostate and create echoes. The probe picks up the echoes, and a computer turns them into a black and white image of the prostate.

The procedure often takes less than 10 minutes and is done in a doctor's office or outpatient clinic. You will feel some pressure when the TRUS probe is placed in your rectum, but it is usually not painful. The area may be numbed before the procedure.

TRUS is not used as a screening test for prostate cancer because it can't always tell the difference between normal tissue and cancer. Instead, it is most often used to look for prostate cancer when a man has symptoms or has an abnormal PSA level or digital rectal exam (DRE). During a prostate biopsy, TRUS is used to guide the biopsy needles into the right area of the prostate.

TRUS is useful in other situations as well. It can be used to measure the size of the prostate gland, which can help determine the PSA density and may also affect which treatment options a man has.

Prostate biopsy

A biopsy is a procedure in which a sample of body tissue is removed and then looked at under a microscope. A *core needle biopsy* is the main method used to diagnose prostate cancer. It is usually done by a urologist, a surgeon who treats cancers of the genital and urinary tract, which includes the prostate gland.

Using transrectal ultrasound to "see" the prostate gland, the doctor quickly inserts a thin, hollow needle through the wall of the rectum into the prostate. When the needle is pulled out, it removes a small cylinder (core) of prostate tissue. This is repeated from 8 to 18 times, but most urologists will take about 12 samples.

Though the procedure sounds painful, each biopsy usually causes only a brief uncomfortable sensation because it is done with a special spring-loaded biopsy instrument. The device inserts and removes the



needle in a fraction of a second. Most doctors who do the biopsy will numb the area first with local anesthetic. You might want to ask your doctor if he or she plans to do this.

The biopsy itself takes about 10 minutes and is usually done in the doctor's office. You will probably be given antibiotics to take before the biopsy and possibly for a day or 2 after to reduce the risk of infection.

For a few days after the procedure, you may feel some soreness in the area and will probably notice blood in your urine. You may also have some light bleeding from your rectum, especially if you have hemorrhoids. Many men also see some blood in their semen or have rust colored semen. This can last for several weeks after the biopsy, depending on how frequently you ejaculate.

Your biopsy samples will be sent to a lab, where a *pathologist* (a doctor who specializes in diagnosing disease in tissue samples) will look at them under a microscope to see if they contain cancer cells. If cancer is present, the pathologist will also assign a *grade* to it. This is often expressed as a *Gleason score* (or *Gleason sum*). Although in theory this can range from 2 to 10, Gleason scores below 6 are rare. The higher your Gleason score, the more likely it is that your cancer will grow and spread quickly.

Getting the biopsy results usually takes at least 1 to 3 days, but it can sometimes take longer.

Even when taking many samples, biopsies can still sometimes miss a cancer if none of the biopsy needles pass through it. This is known as a *false-negative* result. If your doctor still strongly suspects you have prostate cancer (because your PSA level is very high, for example) a repeat biopsy may be needed to help be sure.

Prostate biopsy results are sometimes called *suspicious*. The pathologist may use terms such as prostatic intraepithelial neoplasia (PIN), atypical small acinar proliferation (ASAP, or just atypia), or proliferative inflammatory atrophy (PIA). Suspicious results mean that the cells don't look quite normal, but they don't look like cancer, either. If your biopsy results come back suspicious, your doctor may want to repeat the biopsy.