

Early detection of Prostate Cancer:

Facts and scientific update for the EU Cancer Plan

1. 107.000 men died of prostate cancer in Europe in 2018 and thus, is not an indolent disease. It is responsible for >10% of all male cancer deaths.
 - o Prostate cancer is the second cause of male cancer death, after lung and before colorectal cancer.
 - o Prostate cancer today kills more men than women die of breast cancer.
 - o Most men are not aware that you can have prostate cancer without symptoms and are uninformed about the existence and value of the PSA blood test.
2. Early detected prostate cancer can be easily cured without significant side-effects and at a rather low price. Advanced cancer is less amenable for cure, with substantial side-effects and a significant reduction in quality of life, and has a high chance of becoming metastatic and castrate-resistant. Treatment of this late stage disease is costly and prolongs life with on average only two years. Most importantly, the quality of life of these men is poor.
3. Before the PSA blood test became available, most men presented with metastatic disease and up to one out of two prostate cancer patients died of the disease. Since the introduction of PSA to detect prostate cancer at an early stage, the mortality from prostate cancer has decreased more than for any other cancer. Now one out of four men die of prostate cancer. Early detection of prostate cancer by PSA based population screening has been shown in a large randomized European study to substantially decrease prostate cancer mortality at reasonable cost. This is, however, at the cost of over-diagnosis and potential overtreatment.
4. The subsequent recommendations against PSA testing resulted in an increasing rate of late diagnosis at advanced or metastatic stages and in increasing death rates from prostate cancer. Thus, today more men suffer and die from prostate cancer.
5. Compared to the classic diagnostic strategy (that is, PSA and direct biopsies), we can use PSA more cleverly, apply MRI and further risk stratification tools in men at increased risk, that might need to undergo biopsy. This combined approach in well-informed men will allow a substantial reduction of the number of men that need to undergo biopsy (up to 70%) and over-diagnosis up to 20%. Withholding active therapy (Active Surveillance) can reduce overtreatment (by up to 25%). With the application of MRI guided active surveillance for all low and some intermediate risk prostate cancers, we can better and non-invasively guide these patients.

Early detection of PCa in well informed men*



50 - 59 years

50% <1.0



PSA at
5 years

40% 1-3.0



PSA at
2-4 years

10% ≥ 3



Reflex
testing**



60 - 70 years

30% <1.0



Stop PSA

45% 1-3.0



PSA at
2-4 years

25% ≥ 3



Reflex
testing**

* see EAU's Patient Information leaflet on PSA testing

** Family history, African-American origin, PSA density, BRCA2 gene mutation, nomograms/risk calculator (ERSPC and PCPT)