Smarter screening for aggressive prostate cancer

Supporting earlier identification of aggressive prostate cancer (Grade Group ≥2) through individualized risk assessment



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Effective prostate cancer screening, an unmet clinical need

Better diagnostic tests are needed to detect aggressive cancers earlier when they are still curable.

Prostate cancer is the most common cancer among men in Europe (1). Early identification of aggressive prostate cancer is essential to improve long-term outcomes and avoid late-stage diagnosis. As prostate cancer is typically symptom-free until it spreads, testing needs to happen before symptoms develop.

PSA-based screening has improved early detection of prostate cancer but also has recognized limitations. A major problem with PSA is that it misses aggressive cancers in men with low PSA levels, below the commonly used cut-off of 3 ng/ml.

Up to 50% of aggressive prostate cancers occur at these low PSA levels, and some of them may be more deadly than cancers found at higher PSA levels (2). At the same time, PSA often rises for reasons unrelated to cancer, leading to many false alarms.

These false positive test results are associated with anxiety, downstream harms, and aviodable healthcare costs from unnecessary MRIs and biopsies. PSA also has limited ability to distinguish between slow-growing, harmless cancers and aggressive cancers that require treatment.

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Stockholm3 – a risk-based screening approach

Peer-reviewed trials have evaluated Stockholm3 in population-based settings and structured diagnostic pathways.

Risk-based screening strategies incorporating Stockholm3 have been associated with:

- Improved detection of aggressive prostate cancers (Grade Group ≥2 cancer) (3)
- Identification of aggressive cancers in men with PSA levels from ≥ 1.5 ng/ml (4)
- Reduction in unnecessary MRIs and biopsies for men with elevated PSA levels (5)

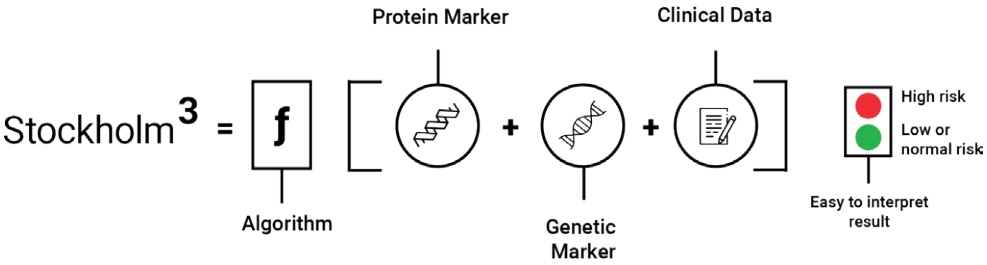
- Validated in high quality studies involving more than 90,000 men
- Provides a clear and quantified Risk Score to support decision-making
- Proven in routine clinical care across European healthcare systems
- Referenced in professional guidelines as a validated risk-based approach for early detection of prostate cancer

1) James ND, et al. Lancet. 2024. | 2) Eldred-Evans D, et al. Eur Urol Oncol. 2023. Moller F, et al. Eur Urol. 2024. McHugh JK, et al. N Engl J Med. 2025. Mahal BA, et al. Cancer. 2016. Fankhauser CD, et al. Eur J Cancer. 2023. Mahal BA, et al. Eur Urol. 2018. Chakraborty G, et al. J Clin Oncol. 2025. Zhang P, et al. PLoS One. 2025. | 3) Nordstrom T, et al. Lancet Oncol. 2021. Palsdottir T, et al. ASCO GU. 2026. | 4) Nordstrom T, et al. Lancet Oncol. 2021. Palsdottir T, et al. ASCO GU. 2026. 5) Palsdottir T, et al. Eur Urol Open Sci. 2024. Viste E, et al. Scand J Prim Health Care. 2020.

Combining multiple risk signals into one risk score

Stockholm3 is a blood test designed to improve prostate cancer screening and to address the limitations of PSA.

Stockholm3 uses an advanced algorithm combining multiple risk signals from blood-based biomarkers, genetic risk information, and clinical risk factors to estimate a man's risk of having aggressive prostate cancer.



Biomarkers
Panel of protein biomarkers associated with prostate cancer biology.

Genetic risk markers
Validated genetic variants associated with aggressive prostate cancer, used to refine individual risk assessment.

Clinical information
Key clinical factors, including age and relevant patient characteristics.

Results and clinical use

Stockholm3 provides a quantitative prostate cancer risk score and structured information to support decision-making.

Risk score

The test reports the individual probability of aggressive prostate cancer as a risk score.

Recommendation for further action

Elevated risk	Consider referral for further diagnostic evaluation (e.g., MRI and, where appropriate, biopsy) in accordance with clinical guidelines.
Low risk	Continue routine care; repeat testing as clinically indicated.

As demonstrated in real world settings, Stockholm3 can be effectively used in both primary and specialist care.

Men undergoing assessment for prostate cancer

Intended for asymptomatic men aged 45–74, including men undergoing prostate cancer evaluation, consistent with current clinical practice.

Before downstreams diagnostics

May be used prior to MRI or biopsy to support risk-based selection for further diagnostic evaluation.

Evidence-based, clinically validated

Stockholm3 is supported by substantial clinical evidence and real-world use, providing a robust foundation for risk-based prostate cancer screening.

Clinical validation

Validated in studies of over 90,000 men, supporting improved early detection of aggressive cancer while reducing unnecessary procedures.

Real-world implementation

In routine clinical care in Europe, supporting feasibility, scalability, and integration into existing care pathways.

Guidelines and expert recognition

Referenced in professional guidelines and aligned with contemporary risk-based screening principles.

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Demonstrated clinical impact

Stockholm3 showed 90% sensitivity and 89% specificity in detecting aggressive prostate cancer (Grade Group ≥2 cancer) in European screening cohort (N=12,670). PSA ≥3 ng/ml showed 74% sensitivity and 90% specificity, while PSA ≥4 ng/ml showed 52% sensitivity and 95% specificity in the same cohort.(3)

In men with PSA ≥1.5 ng/mL, Stockholm3 enabled detection of aggressive cancers while reducing unnecessary biopsies in men compared to PSA-based referral pathways.(4)

Real-world use studies from Northern Europe reported stage migration and increased detection of aggressive prostate cancer following Stockholm3 replacement of PSA-based screening strategies:

- ✓ Compared with national Swedish registry data, a stage migration at biopsy was observed for the cancers detected at the Capio Prostate Cancer Center (N=12,405) which showed 46% fewer low-risk diagnosis, and a higher proportion (+41%) of intermediate-risk cancers. (4)
- ✓ In a cross-sectional, population-based health-system implementation study in Norway (N=4,784), replacement of PSA with Stockholm3 was associated with an 89% relative increase in detection of aggressive prostate cancer and a 26% reduction in detection of Grade Group 1 disease compared to the prior PSA-based pathway. (5)

Supported by extensive clinical research

The Stockholm3 test is supported by extensive clinical research and real-world evidence across multiple European healthcare systems.

Clinical studies
Validated in large prospective studies demonstrating improved identification of aggressive prostate cancer compared with PSA-based screening.

Real-world implementation
Implemented in routine clinical practice in Europe, supporting feasibility, scalability, and integration into existing care pathways.

Large patient cohorts
Evidence derived from studies and registries including more than 90,000 men, covering both screening and diagnostic pathways.

Guideline and expert recognition
Referenced in professional guidelines and expert recommendations as a validated risk-based approach to prostate cancer detection.

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Designed & Developed by A3P Biomedical

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