



Prostate Specific Antigen (PSA)

Synonyms

PSA

Clinical Indication

In combination with digital rectal examination PSA can aid diagnosis of prostate cancer in symptomatic patients. PSA is also useful for monitoring patients with diagnosed pancreatic cancer. The value of PSA in screening asymptomatic men has not been proven in clinical trials - [a patient information leaflet is available](#).

Part of Profile / See Also

N/A

Request Form

Combined Pathology manual Blood form or ICE request

Availability / Frequency of Analysis

On request.

Turnaround Time

Same Day

Patient Preparation

Urological manipulations affect PSA levels and if possible sample should be taken before procedure. Effects are as follows:

DRE / Prostate massage	May cause minor increases in some patients, take sample for PSA before procedure.
Ejaculation	Results conflicting but may increase PSA levels.
TURP / Needle Biopsy	Increases PSA levels significantly. Wait at least 6 weeks before taking sample for PSA levels.
Ultrasound	Increases PSA levels in a minority of patients.
Cystoscopy	Flexible cystoscopy does not appear to increase PSA levels but rigid cystoscopy may increase levels.

Sample Requirements

Specimen Type

Serum

Volume

2 ml

Container



Yellow top (SST) tube

Reference Range & Units

Age (Male)	Threshold:
≤69 yr	<3 ng/ml
70-79 yr	<5 ng/ml
≥80 yr	No range

Interferences

None

Interpretation & Clinical

Decision Value (if applicable)

Benign prostatic hypertrophy (BPH), acute and chronic prostatitis, urinary retention, prostate biopsy, prostate massage and ejaculation may give rise to transient elevation of PSA levels. Prior to secondary care referral, a PSA above the age-related reference range that is below 10ug/L should be repeated 4 weeks later in the absence of DRE, heavy exercise, cycling or ejaculation within 48 hours of the test.

For patients ≥ 80 years of age:

PSA ≥ 40 Refer urgently to urology

PSA 10 – 40 Refer if patient symptomatic

PSA <10 Does not require any further intervention

Half-life in serum - Approx. 2.5 days after radical prostatectomy. Half-life after radiotherapy may be many months.

References

Test code

PSA

Lab Handling

Analysed from primary tube and stored at 4°C.