



Prostate Cancer: An Overview

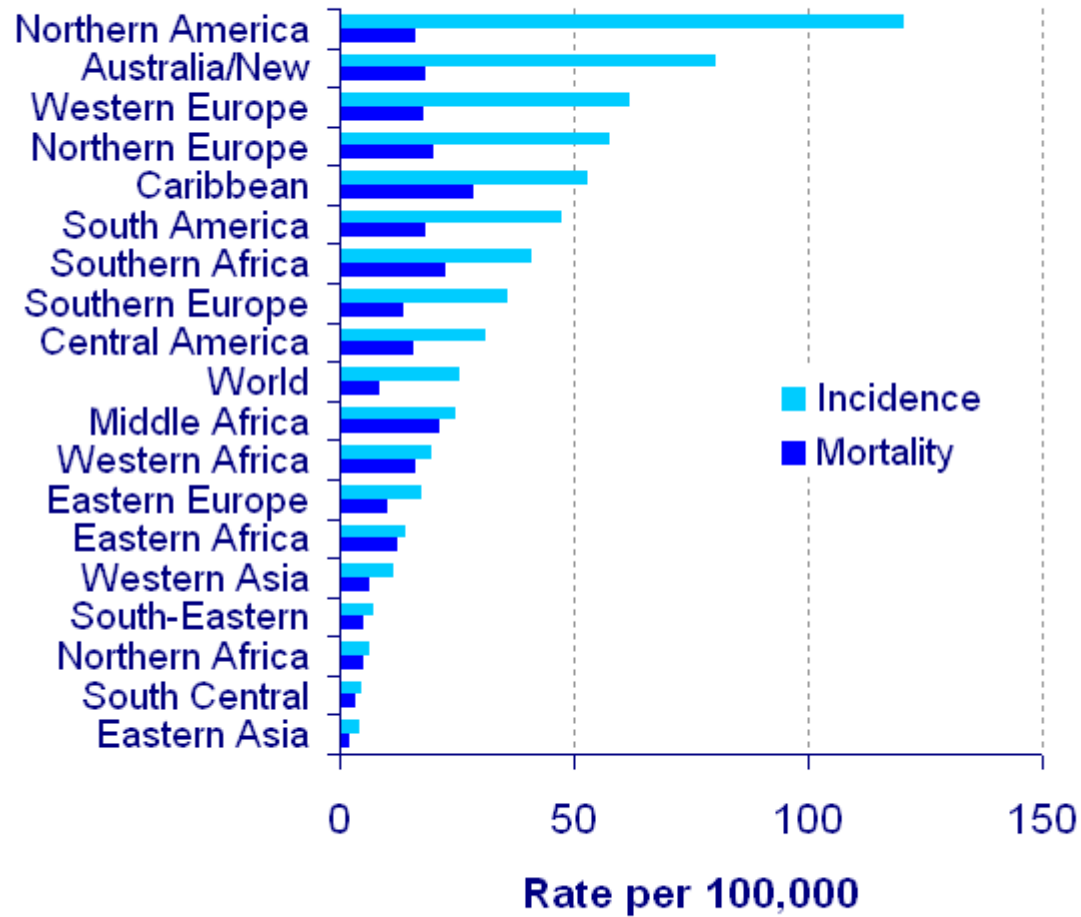
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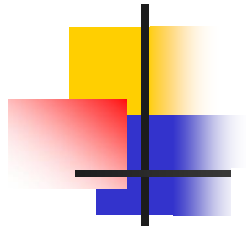


Background

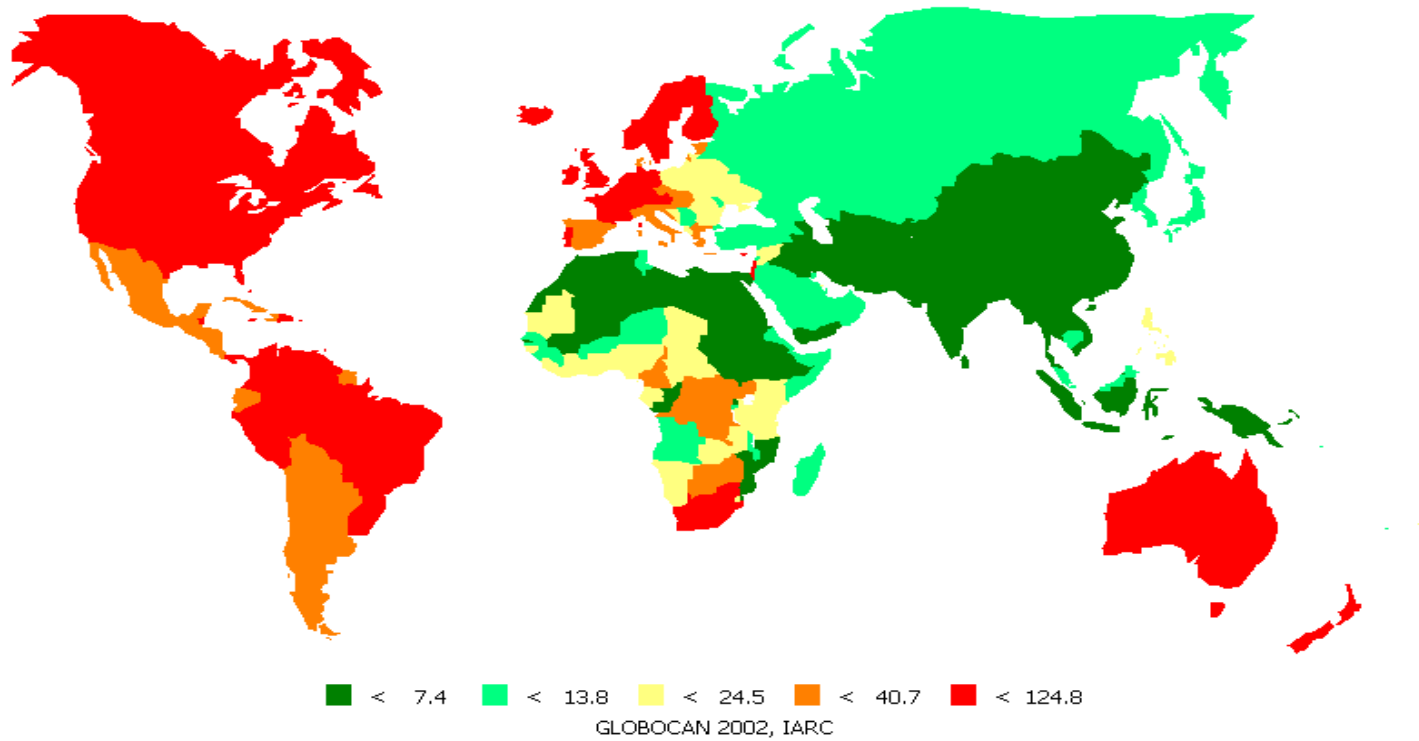
- Most common cancer in men in UK
- Risk - Age
 - Race
 - Familial
- Prevalence increasing
- Mortality rates unchanged

Figure 1.2: Age-standardised* incidence and mortality rates for prostate cancer by world regions, 2002 estimates





Prostate
Age-Standardized incidence rate per 100,000





Patient Journey

Symptomatic

- LUTS
- Bone Pain
- PSA
- DRE
- Referral to Urologist
- Biopsy
- +/- Imaging

Asymptomatic

- PSA request
- Incidental Finding
- Incidental PSA test
- DRE
- Referral to Urologist
- Biopsy
- +/- Imaging



PSA

- Normal range is age dependent

40-50 yrs	<2.5ng/mL
50-60 yrs	<3.5
60-70 yrs	<4.5
>70 yrs	<6.5
- Not specific for prostate cancer
- Affected by prostate volume
- Variability in assays

DRE



- For determining clinical or TNM stage
- Asymmetry of gland
- Nodules in 1 or both lobes
- Hard woody consistency
- Palpable seminal vesicles
- False positives

'T' Stage

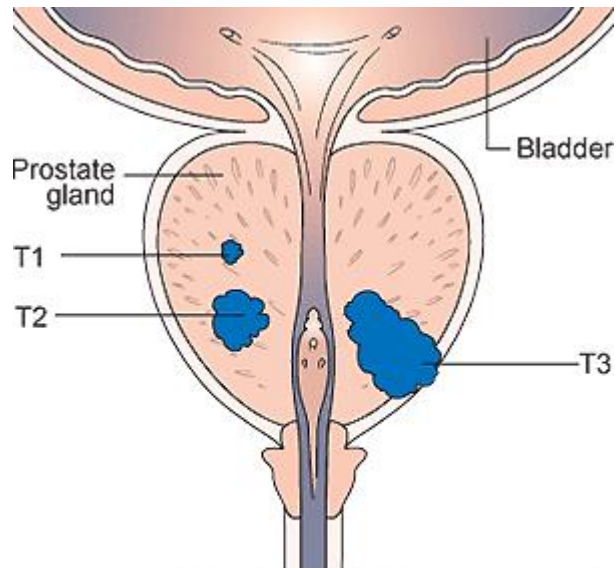


Diagram showing T1-3 stages of prostate cancer
© CancerHelp UK

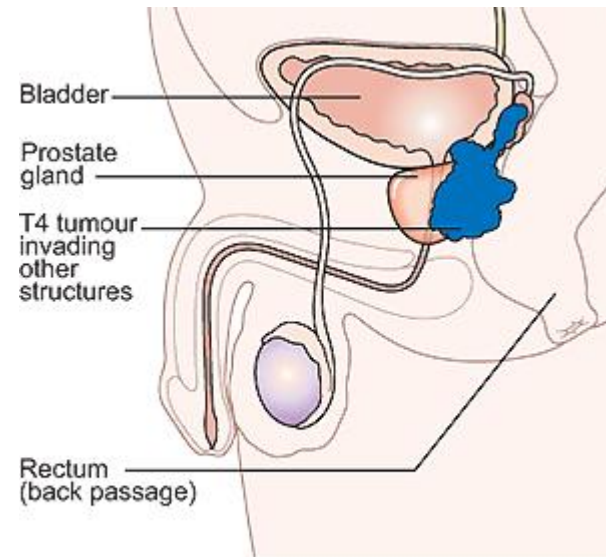
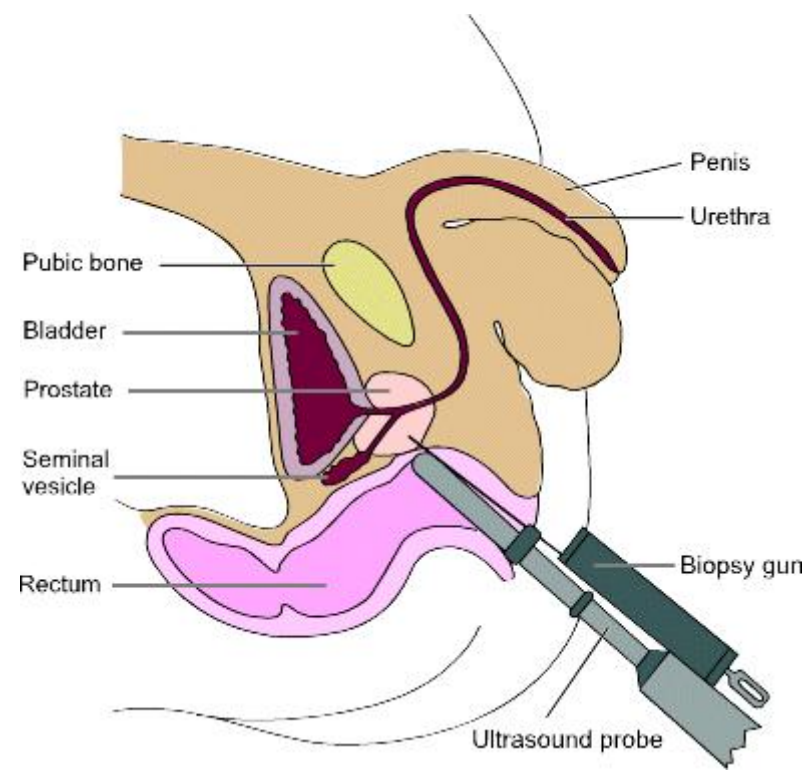
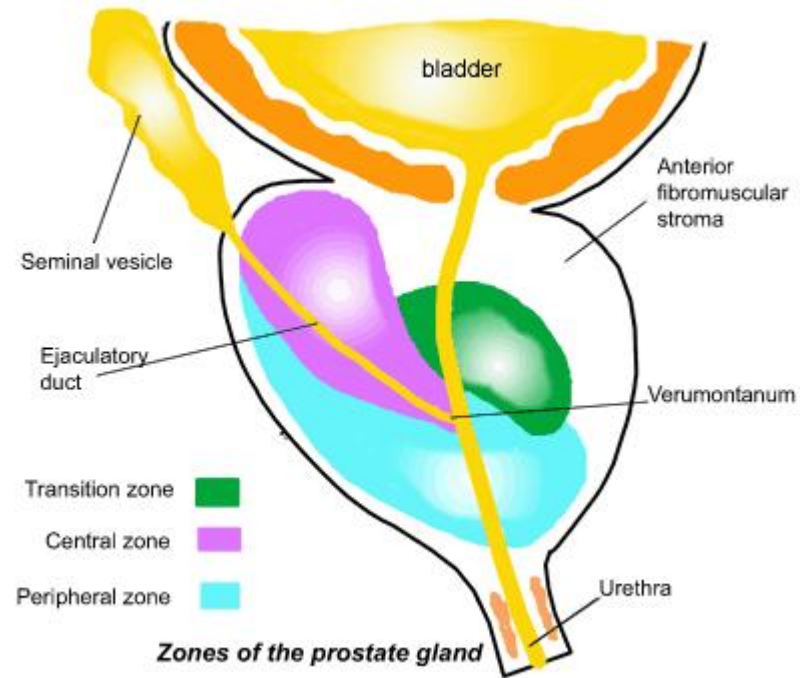


Diagram showing stage T4 prostate cancer
© CancerHelp UK

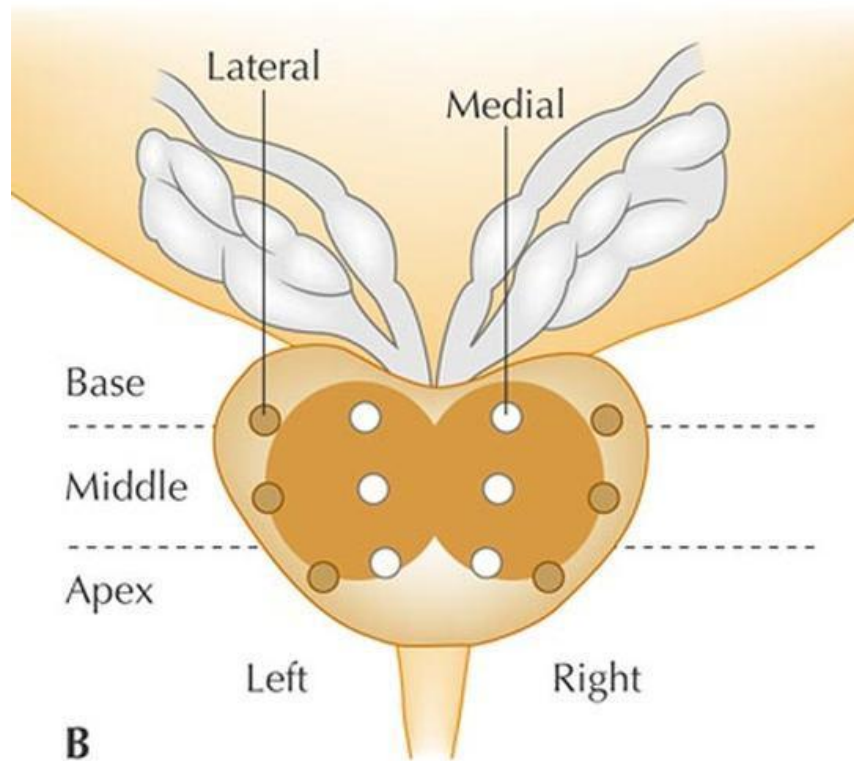
TRUSS & Biopsy



The Prostate



Systematic Biopsies





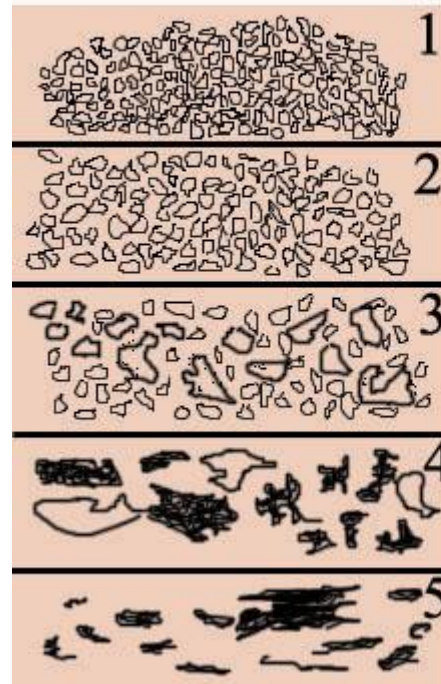
TRUSS & Biopsy - Risks

- Bleeding
- Infection
- Retention
- Need for repeat biopsy
- Histological diagnosis - Gleason

Gleason Score

Gleason Scale

Well differentiated



1

Small, uniform glands

2

More space between glands

3

Infiltration of cells from glands at margins

4

Irregular masses of cells with few glands

5

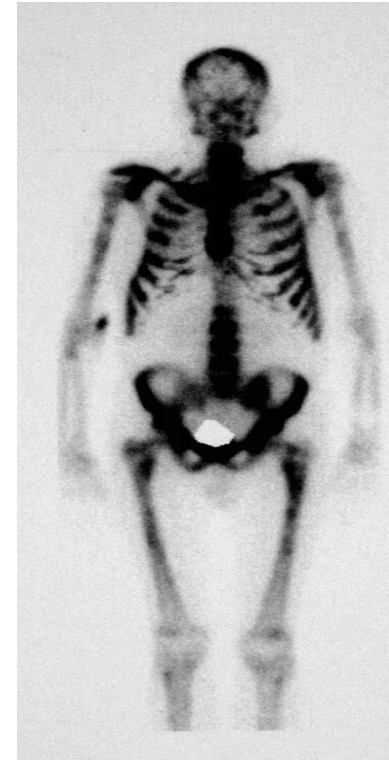
Lack of glands, sheets of cells

Poorly differentiated





Radiological Staging





Treatment options for late prostate cancer

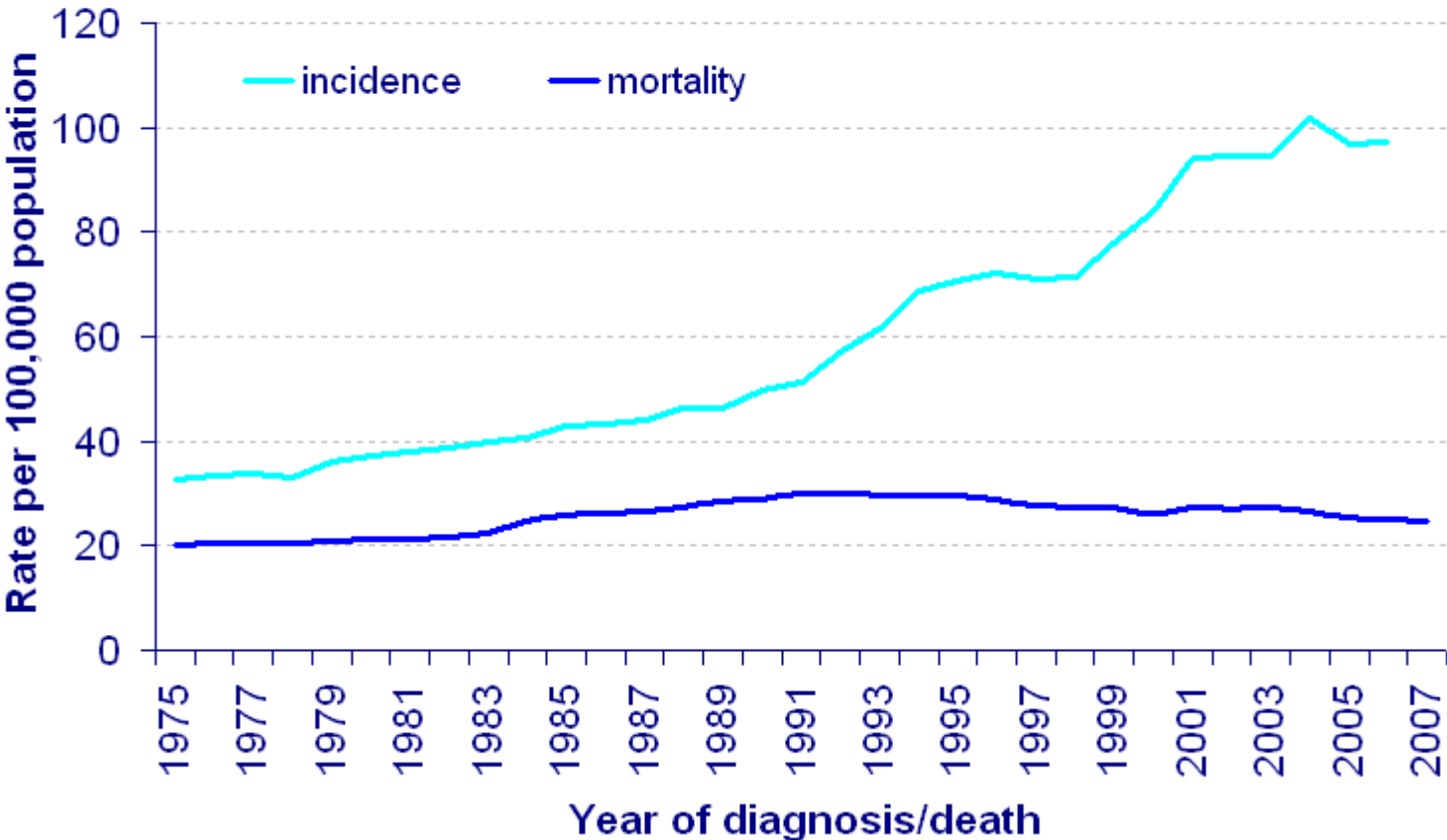
- Hormones
- Palliative care
- Chemotherapy
- Bisphosphonates
- Research trials



Treatment options for early prostate cancer

- Active Surveillance
- Surgery
- Conformal Radiotherapy
- Brachytherapy

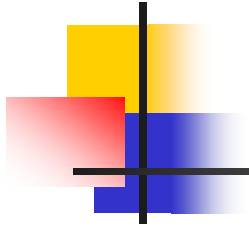
Figure 1.4: Age standardised (European) incidence and mortality rates, prostate cancer, males, GB, 1975-2007





Current Predictors of Bio-potential

- Gleason
- Clinical Stage/Extent of prostatic involvement
- PSA at presentation
- Rate of PSA change (velocity/doubling time)



Thank You