



# Interpretation of Serum PSA in Men Taking 5 $\alpha$ -Reductase Inhibitors

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# Issue

Does PSA testing provide false reassurance for men taking 5 $\alpha$ -reductase inhibitors and, therefore, lead to a delay in diagnosis of cancer?

# Prostate Cancer

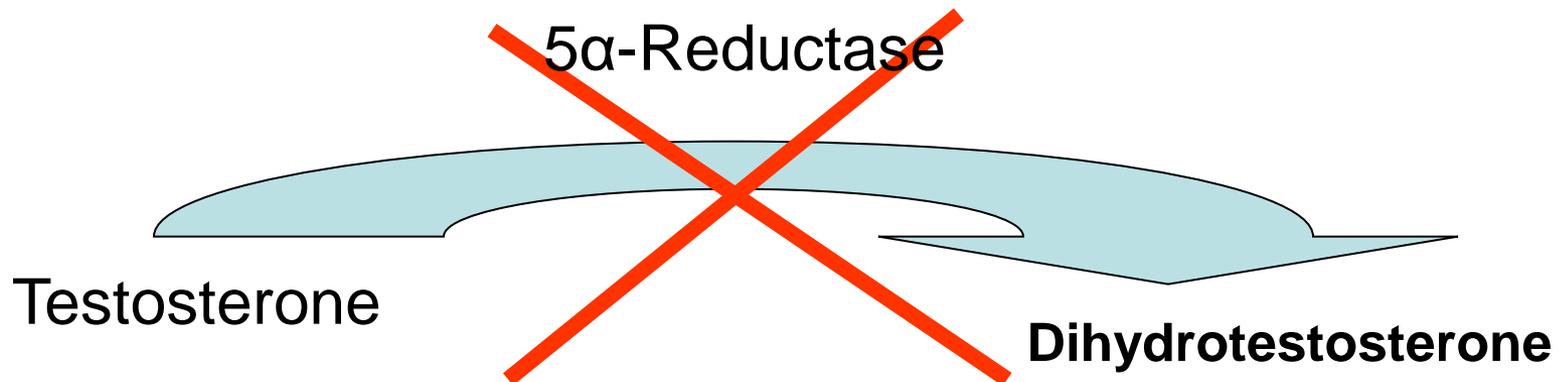
- Most common solid organ cancer in men
- Second most common cause of cancer death in men (~30,000 per year)
- Serum PSA in conjunction with digital rectal exam is the most effective method of early detection
- European Randomized Study of Screening for Prostate Cancer reported a 20% reduction in prostate cancer mortality and a 41% reduction in metastatic disease at diagnosis in an intent-to-screen analysis conducted with a mean follow up time of 9 years

# Prostate Specific Antigen

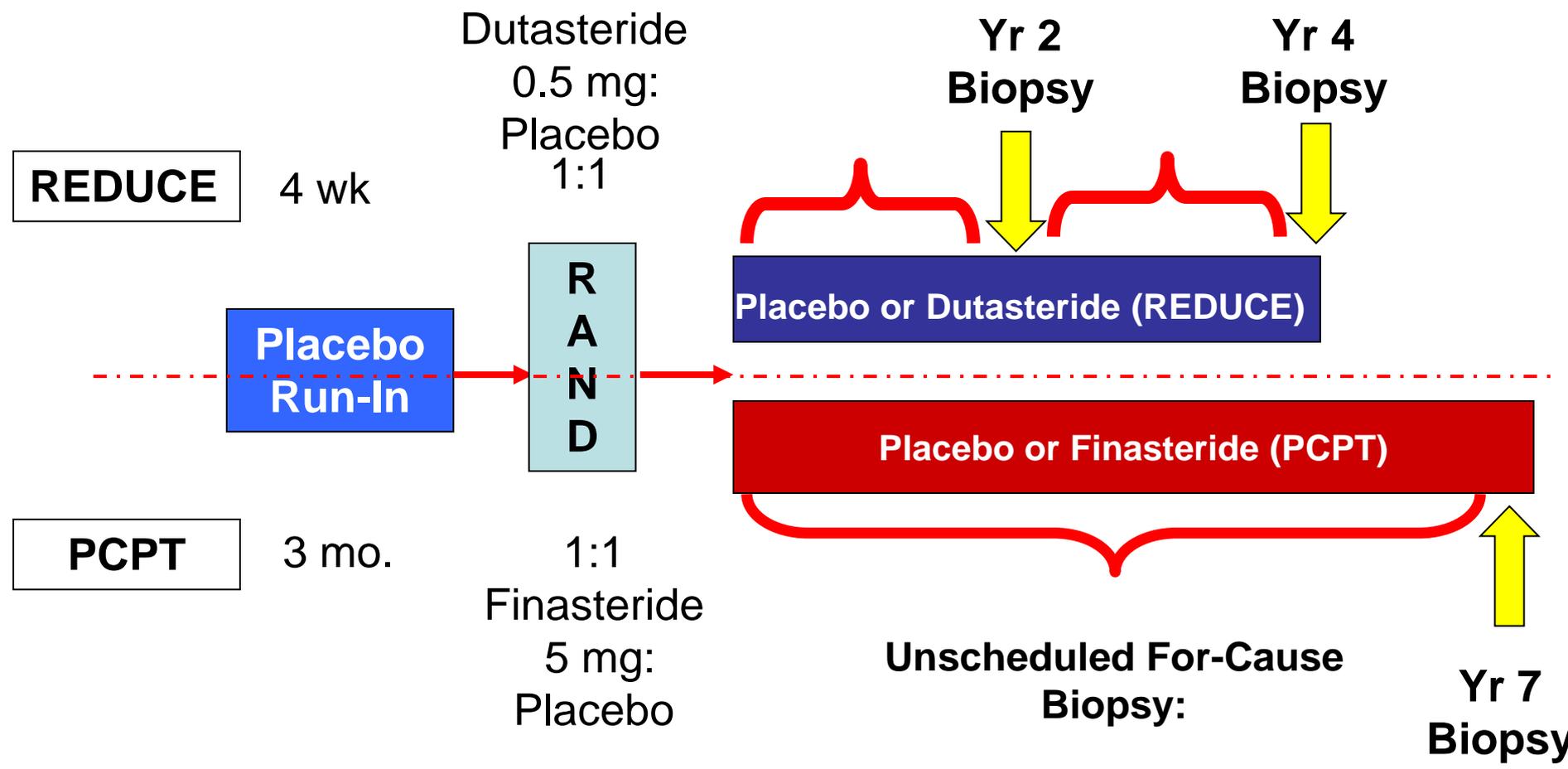
- Glycoprotein secreted by prostatic epithelium
- PSA is a serine protease responsible for liquefaction of semen
- PSA production/secretion is under androgenic control
- Serum PSA is indicated for screening for and monitoring prostate cancer

# 5 $\alpha$ -Reductase Inhibitors (5-ARIs)

- Finasteride 5 mg: treatment of BPH
- Finasteride 1 mg: male pattern hair loss
- Dutasteride 0.5 mg: treatment of BPH
- PSA reduction of ~50% within 3 months



# Prostate Cancer Chemoprevention Trial Designs



# Conclusions

- Acute effect of 5-ARIs on PSA is a reduction of approximately 50%
- Chronic effect in men is either stabilization or a gradual decline
- Doubling of PSA is not valid for long term management
- Any increase in PSA is of concern even if the absolute value is within the normal range
- PSA values must be interpreted with caution in men taking 5-ARIs to avoid false reassurance

# Communication Strategies

- Product labeling
  - Medications
  - PSA test kits
- Outreach to professional groups
  - Laboratories
  - Providers
- **PSA laboratory reports**