Q1. Lots of men have prostate cancer but not a lot of people die from it. Do you agree?

1. Yes

2. No
Table: Recorded Cause of Death in 20,237 men diagnosed with Prostate Cancer

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Number of Deaths</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prostate Cancer</td>
<td>505</td>
<td>1.9</td>
</tr>
<tr>
<td>Other Urological Ca</td>
<td>366</td>
<td>1.8</td>
</tr>
<tr>
<td>Lung Ca</td>
<td>499</td>
<td>2.3</td>
</tr>
<tr>
<td>Colorectal Ca</td>
<td>224</td>
<td>1.1</td>
</tr>
<tr>
<td>Other digestive Ca</td>
<td>371</td>
<td>1.8</td>
</tr>
<tr>
<td>Other/unspecified Ca</td>
<td>1076</td>
<td>5.3</td>
</tr>
<tr>
<td>Ischaemic Heart Disease</td>
<td>1774</td>
<td>8.8</td>
</tr>
<tr>
<td>Other Cardiovascular disease</td>
<td>1816</td>
<td>9.0</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>1323</td>
<td>7.5</td>
</tr>
<tr>
<td>All other causes</td>
<td>2674</td>
<td>13.2</td>
</tr>
</tbody>
</table>

S Chowdhury, L Holmberg et al. Analysis of Thames Cancer Registry (preliminary data)

Graph: Recorded Cause of Death in 20,237 men diagnosed with Prostate Cancer

Q2. Is there a national screening programme for Prostate Cancer

1. Yes
2. No
3. No

English flag and American flag
Q2. Is there a national screening programme for Prostate Cancer

1. Yes
2. No
3. No

UK - opportunistic screening

BAUS and NICE

Early detection through case finding
(LUTS, those who seek a test)

Q3. The goal of screening is to diagnose more patients with prostate cancer?

1. Yes
2. No
Q3. The goal of screening is to diagnose more patients with prostate cancer?

1. Yes
2. No

Increase number of men √ diagnosed
Improve survival rates √
Reduction in mortality x

Screening Studies
‘The Evidence’
PLCO - US study
Prostate, Lung, Colorectal and Ovarian Screening

- 76,693 men
- Annual PSA and DRE vs. standard care (50:50)
- Median 11.5 year follow up

Andriole NEJM 2009

PLCO - US study - 76,693 men

Screened vs. Control
2820 cancers vs. 2322 cancers
92 deaths vs. 82 deaths

Conclusions
Prostate Ca death rate low
No difference between groups

Andriole NEJM 2009

PLCO - US study - 76,693 men

Criticisms
40-50% PSA and DRE testing in control arm
Biopsy compliance 50% (86% in ERSPC)
44% in each arm had >1 PSA prior to entry

Andriole NEJM 2009
ERSPC European study
European randomised study of screening for CaP

162,243 men, 55-69 yrs
PSA every 4 years vs. no screening
9 year follow up
Endpoint Prostate Cancer specific mortality

---

ERSPC European study - 162,243 men

<table>
<thead>
<tr>
<th>Screened</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.2% Prostate Ca</td>
<td>4.8% Prostate Ca</td>
</tr>
</tbody>
</table>

0.8 times fewer deaths from CaP in screened group
Need to screen 1410 men, NNT 48

PSA screening - 20% reduction in death rate but high risk over diagnosis

---

ERSPC European study - 162,243 men

Criticisms
- Heterogeneous group
- PSA cut off for biopsy 2.5, 3, 10.
- PSA interval 2 or 4 or 7 yrs

¾ TRUS biopsies were negative

41% reduction in metastases in screened arm – Need 10-15 year follow up to see impact
Swedish study

20,000 men (10,000 each group)
PSA and DRE every 2 years vs. control
14 yr follow up

Swedish study - 20,000 men

Screened vs. Control
1138 cancers vs. 718 cancers

44% risk reduction in CaP mortality at 14 years

Need to screen 293 men, NNT 12

Swedish study - 20,000 men

Criticisms –
PSA 2.5 for biopsy
93% men underwent biopsy if triggered by PSA
## Should we screen for Prostate Cancer?

<table>
<thead>
<tr>
<th>Study</th>
<th>Recommendation</th>
<th>NNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLCO (US)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>ERSPC (Europe)</td>
<td>Yes</td>
<td>(NNT 48)</td>
</tr>
<tr>
<td>Swedish</td>
<td>Yes</td>
<td>(NNT 12)</td>
</tr>
</tbody>
</table>

## If CaP screening is to be recommended should it be

- Population / Mass Screening (Screener driven)
- Opportunistic / Case finding (Patient or Physician driven)

## At risk groups

- Family History
- Ethnic origin
- LUTS? Haematospermia?
- ED? Back ache?
Diagnosis

DRE
PSA
Imaging
Prostate biopsy
Special investigations

Q4. There is no point in doing a DRE in the community.

1. Agree

2. Disagree
**DRE**

- Subjective
- Prostatitis/Size
- Obvious malignancy

**PSA**

- Normal function
- Non-specific
- Daily variation

**Imaging**
Imaging

Prostate biopsy

Special cases

Don't want a biopsy

Previous negative biopsy

Very high PSA (100+)

Metastatic disease
Thank you

Evaluation

Screening and diagnosis of prostate cancer - Mr Pardeep Kumar
Please rate this presentation for relevance to you as a GP:

1. Poor
2. Fair
3. Good
4. Very good
5. Excellent