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IMPATTO DELLO STATUS SOCIO-ECONOMICO SULL'INCIDENZA PER TUMORE DELLA PROSTATA, IL GLEASON ALLA DIAGNOSI, IL TRATTAMENTO E LA SOPRAVVIVENZA: I DATI ITALIANI DELLO STUDIO ERSPC

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OBJECTIVE

- The aim of the present investigation was to evaluate whether socio-economic status has an effect on

- prostate cancer incidence
- Gleason score
- prostate cancer treatment
- prostate cancer survival

SOURCE: Italian centre of the ERSPC trial (n=14918)

The ERSPC (European Randomized Study of Screening for Prostate Cancer) was initiated in the early 1990s to evaluate the effect of screening with PSA testing on death rates from prostate cancer.

182.000 men aged 50-74 years in seven European countries were randomly assigned to:
- a screening group that was offered PSA screening every 4 years
- a control group that did non receive such screening.

SOCIO-ECONOMIC STATUS:

A **deprivation index** was constructed at a national level to measure the relative socio-economic disadvantage by using the 2001 national census data.

The deprivation index **is available only at the census section level** and it's a synthesis of 5 socio-economic indicators: educational level, occupation, housing condition, family condition and housing density.

So, we defined **two socio-economic classes** using tertiles of the index distribution in the Florence area:

a) **reference class** (first and second tertile)
b) **deprived class** (third tertile)

SUMMARY OF MAIN FINDINGS:

Deprived men of the control arm in comparison with the reference class:

a) have a slightly lower prostate cancer incidence (RR=0.83, p=0.1614);

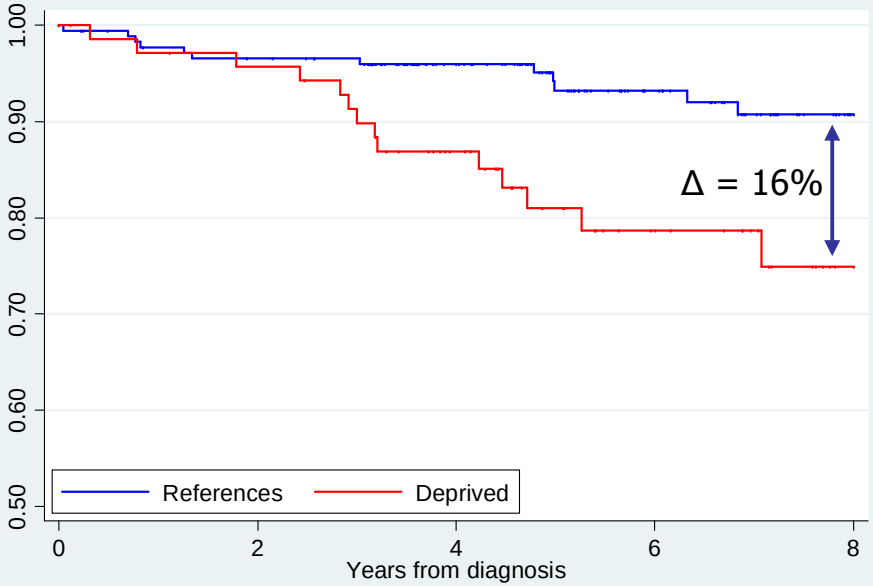
b) have a lower incidence of cases with gleason score <=6 (RR=0.70, p=0.0414)

c) are less likely to have a prostatectomy (OR=0.50, p=0.040 adjusted for age at diagnosis and gleason score)

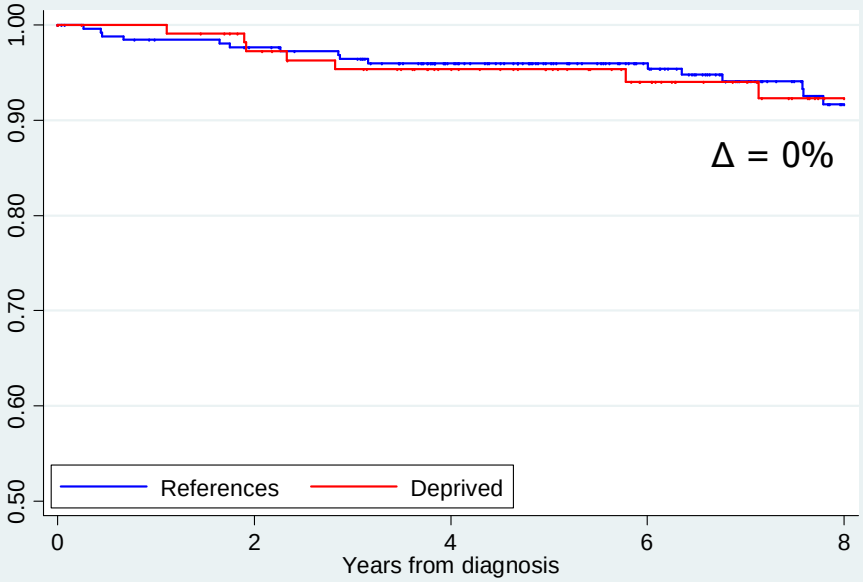
d) have a lower survival rate (Δ=16%, p=0.0025)

All these differences related to deprivation – such as PC incidence, Gleason score, treatment and survival – **disappear in the screening arm.**

a)



b)



Gruppo di controllo

Gruppo di screening

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INTERPRETATIONS OF THE RESULTS (1)

Background situation

Our data supports the hypothesis that in the absence of an organized screening programme:

a) spontaneous PSA use is lower among deprived men in comparison with the reference class

b) treatment modality varies by socio-economic status

→ **These two factors could explain the lower survival rate among deprived men**

INTERPRETATIONS OF THE RESULTS (2):

The effect of the organised PC screening programme

These findings suggest that organised PC screening in Florence has been successful in **reducing socio-economic inequalities in prostate cancer survival** through a two-step process:

a) a similar use of PSA across socio-economic classes

b) a similar treatment modality across socio-economic classes

OPEN QUESTION:

The balance of benefits and harms of an organised screening programme for prostate cancer is still under discussion.

The equalisation of PC survival in the screening arm for the SES classes could be due to overdiagnosis.

CONCLUSION:

Our study did not show that organised screening bring a benefit for deprived men but only that organised screening brings an equalisation between the two socio-economic classes both about the diagnosis process and both about the treatment quality.

Grazie per l'attenzione

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